

Panasonic

Operating Instruction

Colour Television

TX-29P180Z

Please read the operating instructions completely before operating this set.

TQB4G2522

Dear Panasonic Customer

Welcome to the Panasonic family of customers. We hope that you will have many years of enjoyment from your new colour television set.

To obtain maximum benefit from your set, please read these Instructions before making any adjustments, and retain them for future reference. Retain your purchase receipt also, and note down the Model Number and Serial Number of your set in the space provided on the rear cover of these Instructions.

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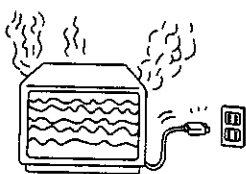
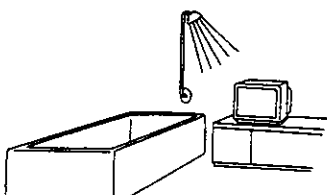

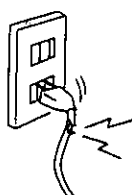
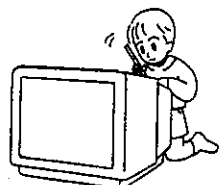
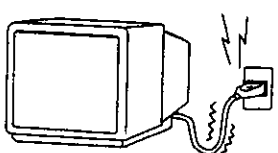
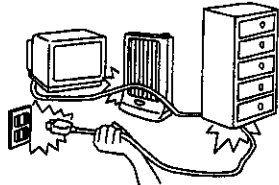
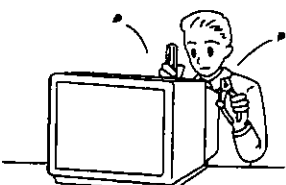
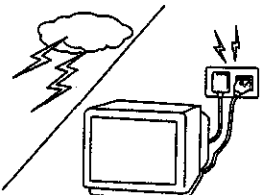
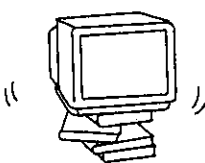
57

Specifications

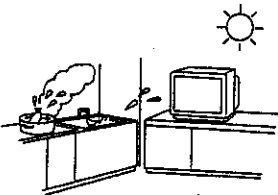

58~59

Warnings and Cautions

⚠ Warnings


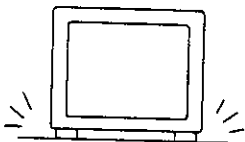
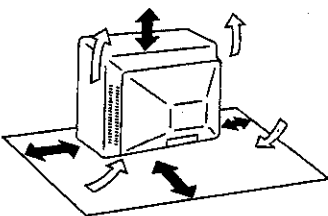

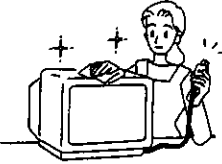

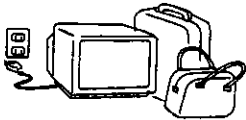
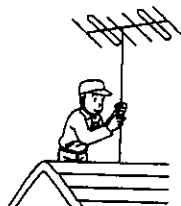
| | | | |
|--|--|--|--|
|  | <p>Unplug the power cord in the event of any malfunction (screen goes blank, no sound, odd sounds, smoke or unusual odours coming from the unit). Unplug the power cord if foreign matter or water falls into the unit, or if the unit is dropped or the cabinet is damaged.</p> |  | <p>DO NOT use this unit near water. (near a bath tub, etc.)</p> |
|  | <p>DO NOT place any of the following on the unit: Flower vases, flower pots, cups, small metal objects, or cosmetics containers, chemicals or water.</p> |  | <p>DO NOT use if the power cord or power plug is damaged, or if the plug does not fit tightly into the socket.</p> |
|  | <p>DO NOT insert foreign objects (metal or easily flammable objects).</p> |  | <p>DO NOT use at a voltage other than indicated.</p> |
|  | <p>TAKE CARE NOT to damage the power cord.</p> |  | <p>DO NOT remove the rear cover as live parts and High Voltage components are accessible when the rear cover is removed.</p> |
|  | <p>DO NOT touch the aerial cable and this unit when there is lightning.</p> |  | <p>DO NOT place in an unstable location.</p> |

⚠ Cautions

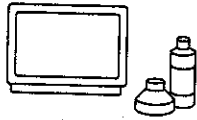

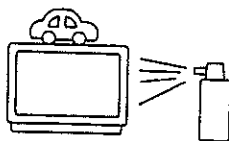

| | | | |
|--|---|---|---|
|  | <p>DO NOT place in humid or dusty location, or areas exposed to smoke or steam. DO NOT place in direct sunlight and other sources of direct heat.</p> |  | <p>DO NOT touch the power plug if your hands are wet.</p> |
|--|---|---|---|

Warnings and Cautions

Cautions

| | | | |
|---|---|--|--|
|  | DO NOT stand, or place heavy objects on the unit. Particular care should be taken by families with small children. |  | Place in a safe location. |
|  | Adequate ventilation is essential to prevent failure of electrical components, we recommend that a gap of at least 10 cm (↔) is left all around this unit even when it is placed inside a cabinet or between shelves. |  | Turn the power "Off" before connecting other electrical equipment. |
|  | Before cleaning, unplug the power plug from the socket. |  | DO NOT jolt the unit. |
|  | Unplug the power plug from the socket if you are not going to use the unit for an extended period. |  | Ask your sales outlet to install the aerial. |

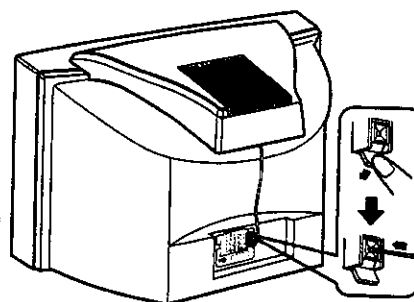
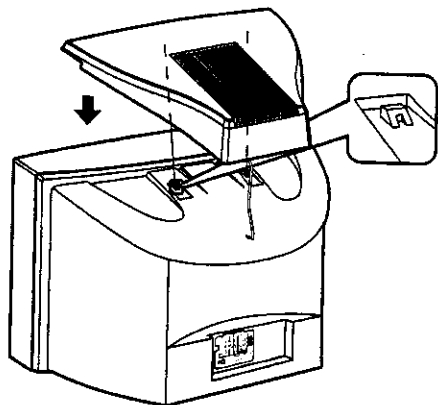
Cleaning

| | | | |
|---|---|--|---|
|  | The unit contains many plastic parts. For this reason DO NOT use benzine, thinner or other chemicals to clean the unit. |  | Dust will accumulate on the picture screen. Please wipe with a soft cloth from time to time. If you use a chemically treated cloth, please be careful to follow the instructions that come with the cloth. |
|  | DO NOT bring into contact with insecticide or other volatile substances. DO NOT allow the unit to come into contact for extended periods with rubber or vinyl products. |  | Remove dirt and soiling by wiping with a light cloth. Even if the unit is heavily soiled, do not apply cleaner directly to the unit. Soak a cloth in a solution of neutral cleanser thinned with water. Then wring out the cloth, wipe the unit clean, and finish by wiping with a dry cloth. |

Before Operating This Set

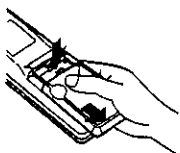
Connecting 3D Woofer Speakers

1. Fix the 3D woofer speaker to the position as shown below.
2. Slide it down slightly to secure the catcher.
3. Press and hold the clamp of the speaker terminal on the rear of the unit.
4. Insert the end of the speaker wires to the terminal.
 - Match the polarity between the unit and the speaker terminals: (+) to (+) and (-) to (-).
5. Release the finger from the clamp.



Battery Installation

1

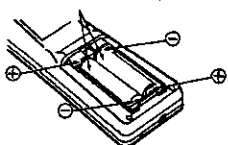


Open the cover.

Apply slight downward pressure while pulling towards the bottom.

2

Two "R6 (AA)" size

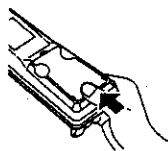


Batteries: Use two "R6 (AA)" size batteries.

Insert the batteries ensuring correct polarity.

This is identifiable by the "+" and "-" symbols on both the batteries and inside the battery compartment.

3



Replace the cover.

Do not use rechargeable (Ni-Cd) batteries.

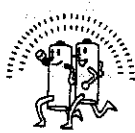
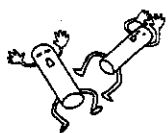
They are different in shape and performance and may fail to ensure correct operation.

⚠ Battery cautions

The incorrect use of batteries can cause electrolyte leakage which will corrode the Remote Control or cause the batteries to burst.

Old Batteries

New Batteries



Replace both batteries at the same time.



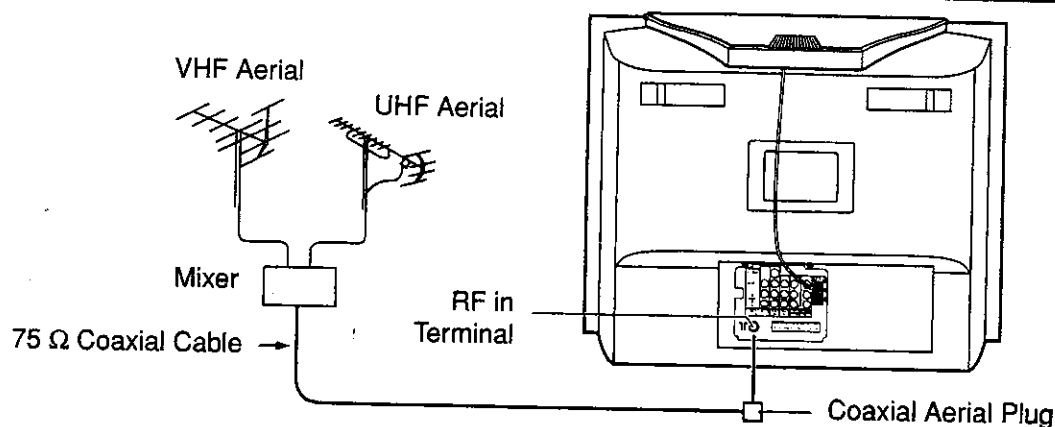
Don't mix battery types
(alkaline with carbon, zinc, etc.)



Don't Recharge.

Before Operating This Set

Connecting the Aerial cable to the RF In Terminal



To obtain the best quality picture and sound, an external antenna, the correct cables (75 Ohm coaxial) and the correct terminating plug will be required.

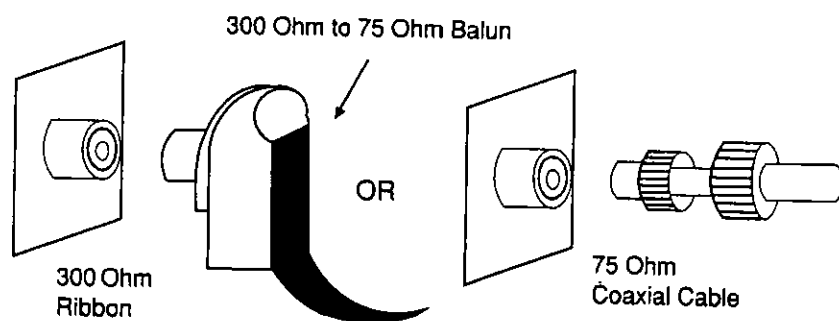
If a communal antenna system is used, you may require the correct connection cable and plugs between the wall antenna socket and your television receiver.

Your local Television Service Dealer may be able to assist you in obtaining the correct antenna system for your particular area and accessories required.

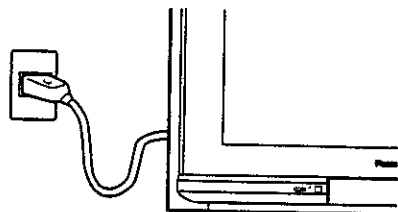
Any matters about antenna installation, upgrading of existing systems or accessories required, and the cost incurred, are the responsibility of the customer.

Note :

If your existing antenna system uses 300 Ohm to 75 Ohm Balun, see Below.



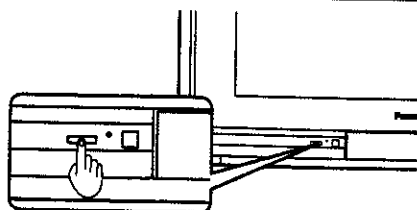
Connecting the Plug to the Wall Outlet



Note:

- Mains plug types vary between countries. The mains plug shown at left may therefore not be the type fitted to your set.

How to Turn the Power On



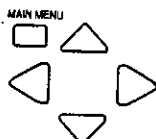
Press the Power switch on Television to turn the set on. (See page 35)

Before Operating This Set

Geomagnetism Correction

Automatic setting from the "PRESET" menu.

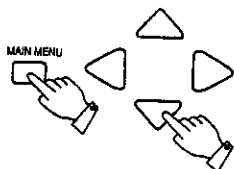
Operation from Remote Control



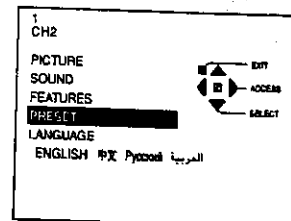
1

Press the Main Menu button.

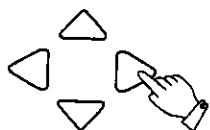
2



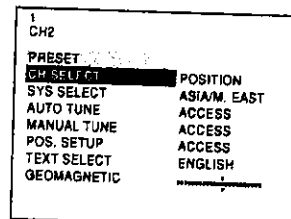
Select the "PRESET" menu by pressing the Position Up "▲" or Down "▼" button.



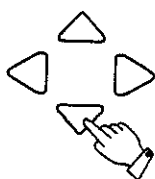
3



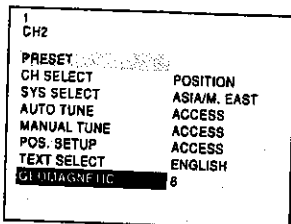
Select the "PRESET" menu by pressing the Position Left "<" or Right ">" button.



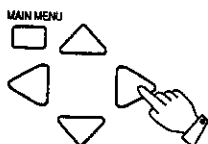
4



Press Position Up "▲" or Down "▼" button to select Geomagnetic.



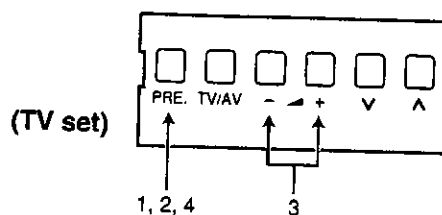
5



Press the Position Left "<" or Right ">" button to adjust the geomagnetic level, so that the colour patches in the four corners of the screen do not appear.

Before Operating This Set

Operation from the TV



- 1 Press the "PRE." (PRESET) button.



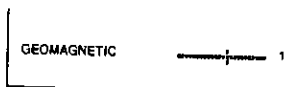
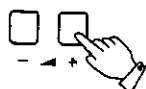
| | |
|-------------|--------------|
| 1 | CH2 |
| PRESET | POSITION |
| CH SELECT | ASIA/M. EAST |
| SYS SELECT | ACCESS |
| AUTO TUNE | ACCESS |
| MANUAL TUNE | ACCESS |
| POS. SETUP | ACCESS |
| TEXT SELECT | ENGLISH |
| GEOMAGNETIC | |

- 2 Press the "PRE." (PRESET) button 6 times.



| | |
|-------------|--------------|
| 1 | CH2 |
| PRESET | POSITION |
| CH SELECT | ASIA/M. EAST |
| SYS SELECT | ACCESS |
| AUTO TUNE | ACCESS |
| MANUAL TUNE | ACCESS |
| POS. SETUP | ACCESS |
| TEXT SELECT | ENGLISH |
| GEOMAGNETIC | 8 |

- 3 Press the Volume Up "+" or Down "-" button to adjust the Geomagnetic level, so that the colour patches in the four corners of the screen do not appear.



- 4 Press the "PRE." (PRESET) button once.



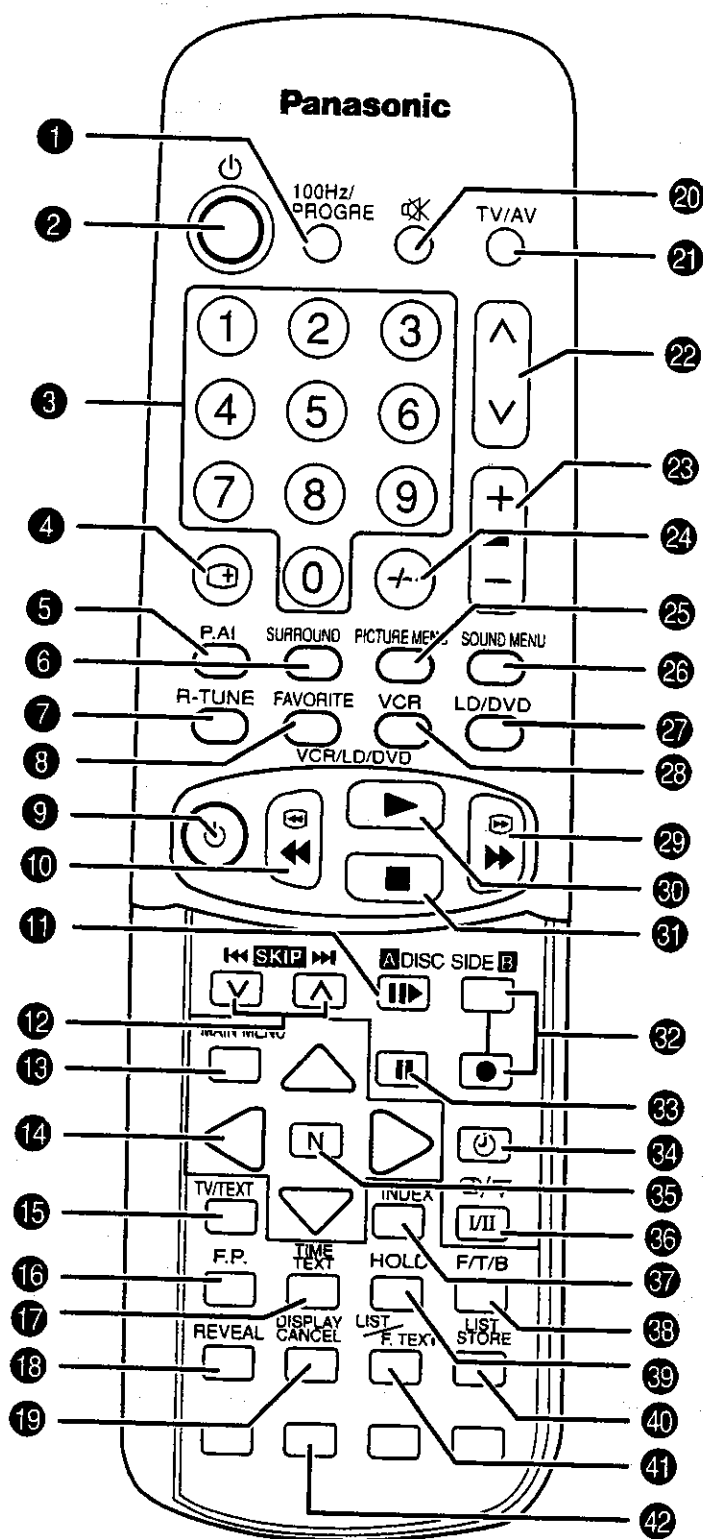
| | |
|----------------|-----|
| 1 | CH2 |
| Normal Viewing | |

Helpful Hint

- (1) If geomagnetic changes still cause colour patches on the screen even after the TV is installed, turn the power off and turn on again after about 30 minutes.
- (2) Adjustment for geomagnetism should be performed every time the location of the TV is changed.
- (3) In some cases, colour patches will not be completely eliminated even after adjustment, particularly in ferro-concrete buildings and other structures susceptible to geomagnetism. In these cases adjust by changing the installation location.

Location of Controls

Remote Control

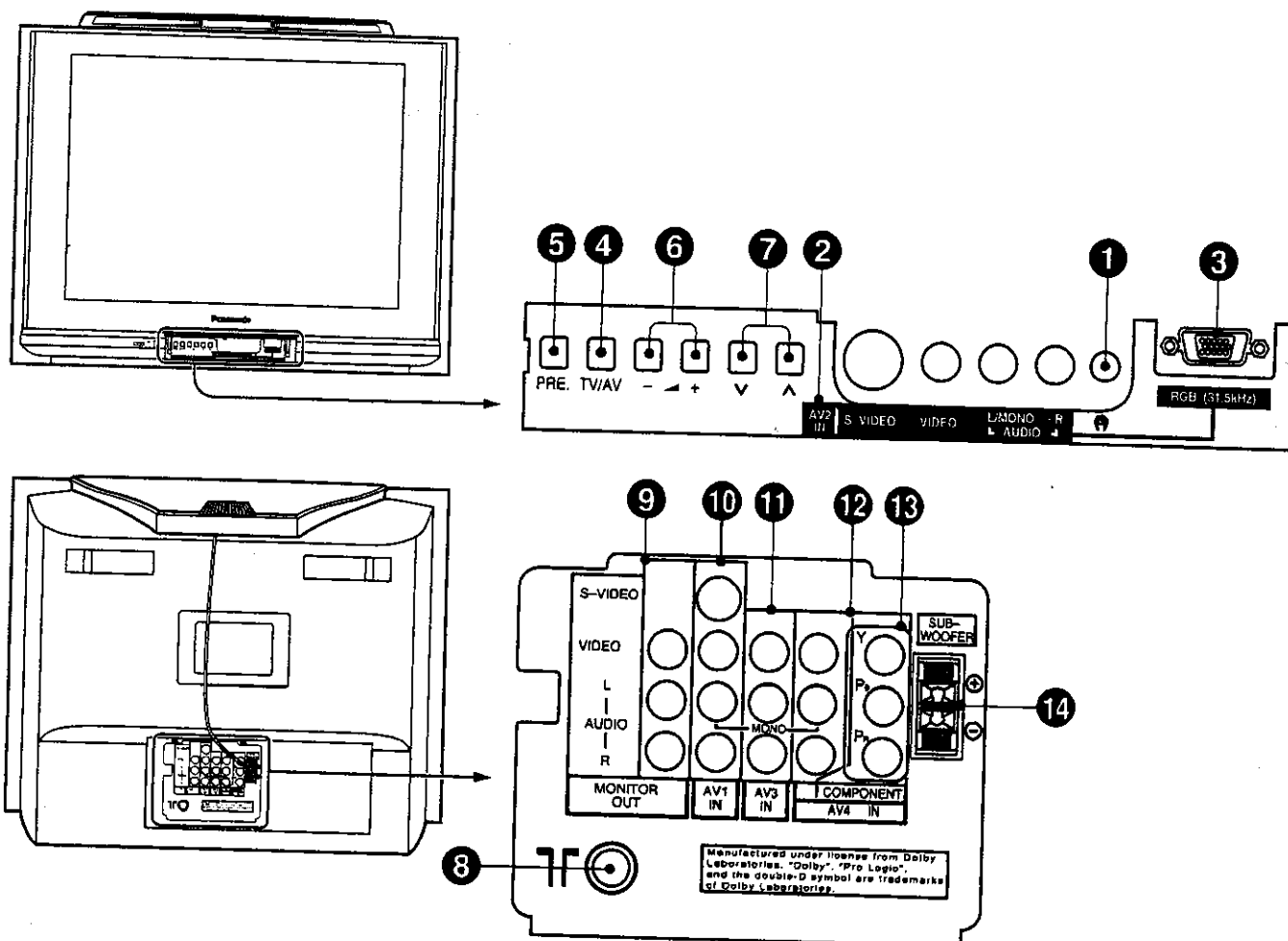


Location of Controls

| Item No. | Function | Refer to Page | Item No. | Function | Refer to Page |
|----------|--|---------------|----------|---|---------------|
| 1 | 100Hz/PROGRE | 43 | 22 | Programme Number Up/Down | 35 |
| 2 | Power Stand-by | 35 | 23 | Volume Up/Down | 35 |
| 3 | Direct Programme Number | 35 | 24 | Two Digit-Programme Number Selection | 35 |
| 4 | Recall | 36 | 25 | Picture Menu | 36 |
| 5 | P.A.I | 43 | 26 | Sound Menu | 36 |
| 6 | Surround | 37 | 27 | LD/DVD | 55 |
| 7 | R-Tune | 36 | 28 | VCR | 55 |
| 8 | Favorite | 48 | 29 | VCR/LD/DVD Fast Forward/Cue | 56 |
| 9 | VCR/LD/DVD Power | 56 | 30 | VCR/LD/DVD Play | 56 |
| 10 | VCR/LD/DVD Rewind/Review | 56 | 31 | VCR/LD/DVD Stop | 56 |
| 11 | VCR Still / Advance (VCR)/ Disc side A Selection (LD/DVD) | 56 | 32 | VCR Record (VCR)/ Disc side B Selection (LD/DVD) | 56 |
| 12 | Programme Number Up/Down(VCR)/ Programme Number Skip (LD/DVD) | 56 | 33 | VCR/LD/DVD Pause Still | 56 |
| 13 | Main Menu | 16, 17 | 34 | Off Timer Selection | 36 |
| 14 | Position Button | 16, 17 | 35 | Normalisation | 45, 46 |
| 15 | TV/TEXT Selection | 53 | 36 | Stereo/Bilingual Sound Selection | 42 |
| 16 | TEXT Favourite Page Selection | 53 | 37 | TEXT INDEX | 53 |
| 17 | Time Text | 54 | 38 | Text Full/Top/Bottom Selection | 53 |
| 18 | TEXT Reveal | 53 | 39 | Text Hold | 53 |
| 19 | DISPLAY CANCEL | 53 | 40 | List/Store | 53 |
| 20 | Sound Mute | 36 | 41 | List/Fast Text | 53 |
| 21 | TV/AV Mode Selection | 36 | 42 | TEXT Colour-Coded Buttons | 53 |

Location of Controls

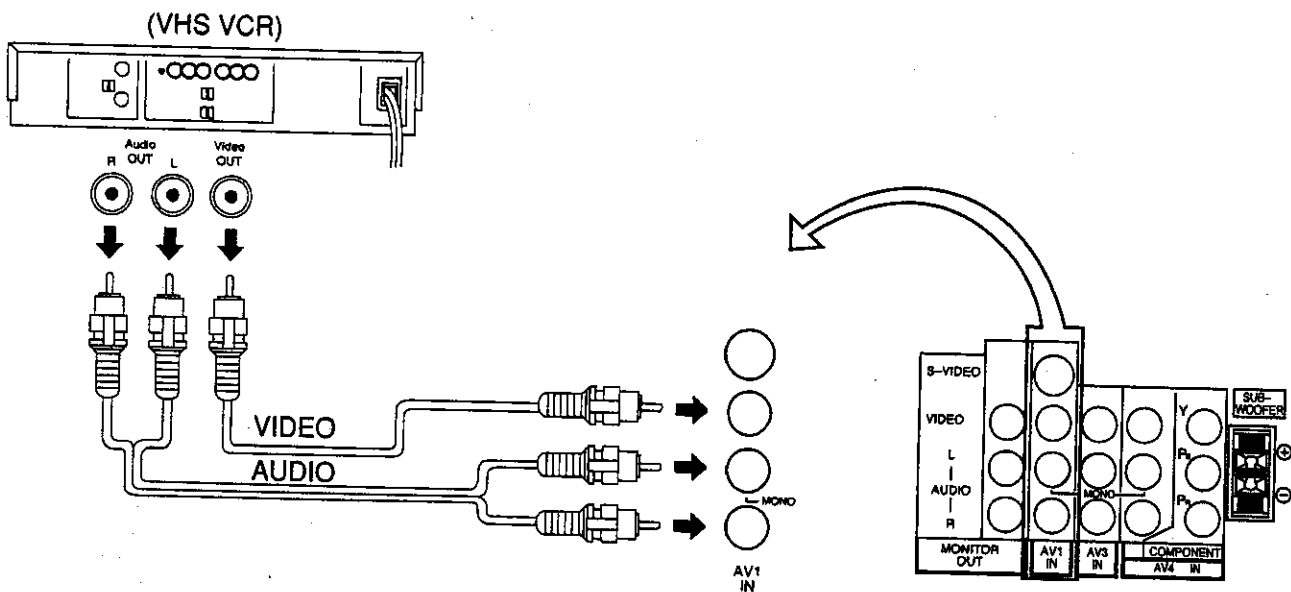
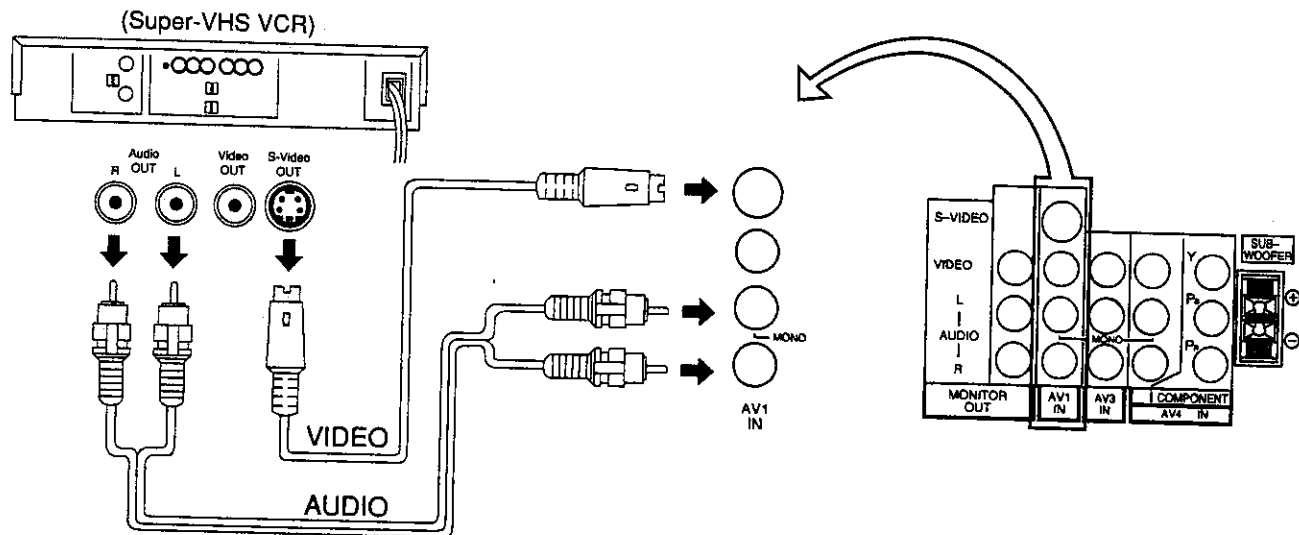
Controls and Terminals on the TV



| Item No. | Function | Refer to Page | Item No. | Function | Refer to Page |
|----------|--------------------------------------|---------------|----------|---|---------------|
| 1 | Headphones | 15 | 8 | Aerial Terminal (RF In Terminal) | 7 |
| 2 | AV2 Input Terminals | 13 | 9 | Monitor Output Terminals | 14 |
| 3 | RGB Input Terminal | 15 | 10 | AV1 Input Terminals | 13 |
| 4 | TV/AV | 36 | 11 | AV3 Input Terminals | 13 |
| 5 | Preset | 19 | 12 | AV4 Input Terminals | 13 |
| 6 | Volume Up (+) and Down (-) | 35 | 13 | DVD (Y•P _B •P _R) Input | 14 |
| 7 | Programme Number Up (Δ) and Down (∇) | 35 | 14 | 3D Woofer Terminals | 6 |

Connections

How to connect the "AV1, 2, 3 or 4" Input Terminals

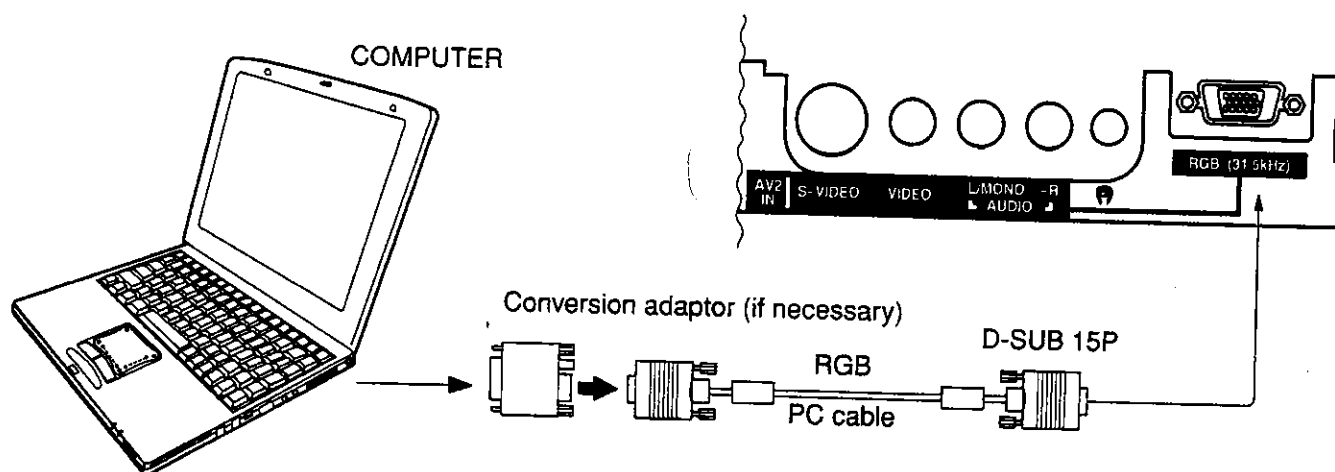


Notes:

- (1) When AV1, AV2, AV3 or AV4 is selected, and that AV mode has no input picture signal, the background colour of the TV screen will change. (This only occur if the Blue-Back function is set to the ON condition; refer to page 47 for details).
- (2) When an S-Video cable is connected to the S-Video terminal, the Video input will be automatically switched off for the AV mode.
- (3) When a Monaural VCR is used, connect the Monaural Audio cable to the Audio "L" (Left) terminal.
- (4) Similar connections are available at the AV1, AV2, AV3 and AV4 input terminals. Select the desired AV input position by pressing the "TV/AV" button. (Refer to page 36).
- (5) The AV2 and AV4 audio input terminals serves as the audio input terminal for both the video input and for the DVD input.

Connections

How to connect the RGB Input Terminals

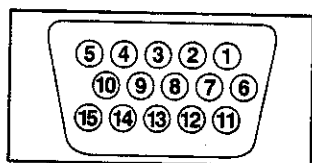


Notes:

- This unit can be connected to PCs with 640×480 (31.5 kHz / 60 Hz) or 640×400 (31.5 kHz / 70 Hz) pixel.
- In some cases other PCs may not work with this TV set.
- There is no audio signal in RGB input.
- The sound of the RGB mode is combined with the Audio signal of AV2.
- Some PC models cannot be connected to the TV set.
- A commercially sold adaptor is required to use the RGB cable (D-sub 15P) to connect a PC-98 series computer (which has a D-sub 15P terminal) or a Macintosh computer to the TV set.

- There is no need to use an adaptor for computers with DOS/V compatible D-sub 15P terminal.

■ Signal Names for D-sub 15P Connector



Pin Layout for RGB Input Terminal

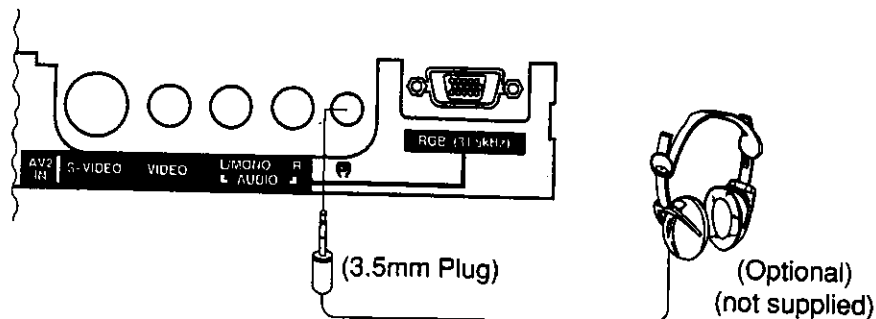
| Pin No. | Signal Name | Pin No. | Signal Name | Pin No. | Signal Name |
|---------|-------------|---------|-------------------|---------|-------------------|
| ① | R | ⑥ | GND(Ground) | ⑪ | GND(Ground) |
| ② | G | ⑦ | GND(Ground) | ⑫ | NC |
| ③ | B | ⑧ | GND(Ground) | ⑬ | HD/SYNC |
| ④ | GND(Ground) | ⑨ | NC(not connected) | ⑭ | VD |
| ⑤ | GND(Ground) | ⑩ | GND(Ground) | ⑮ | NC(not connected) |

Connecting Headphones

Connect headphones as follows.

When a Headphone plug is inserted into the Headphones socket, all speakers will be automatically disconnected; only the Headphones will function.

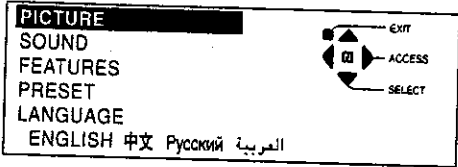
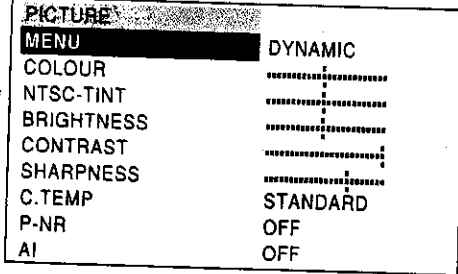
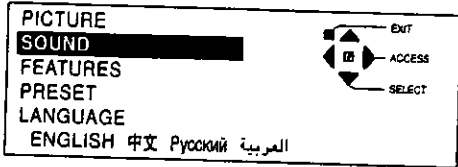
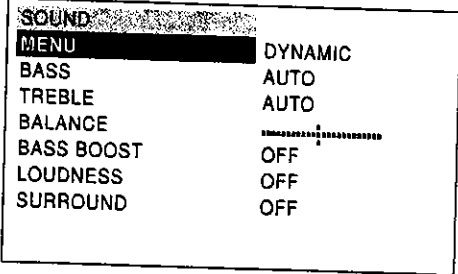
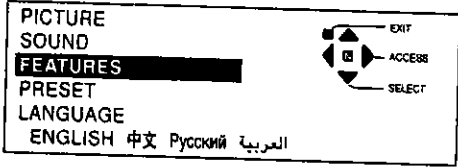
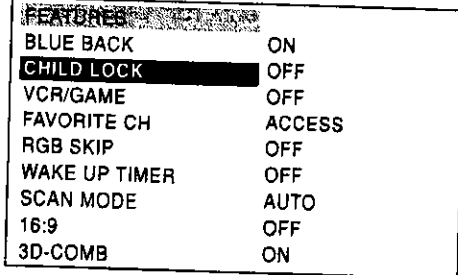
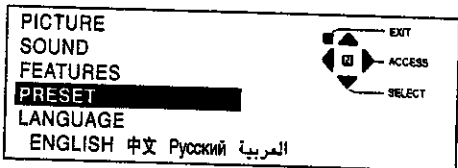
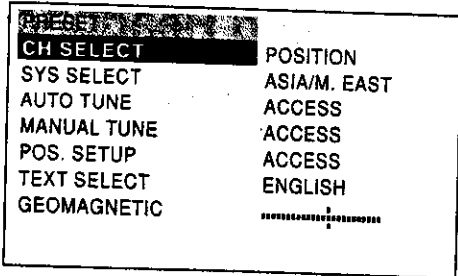
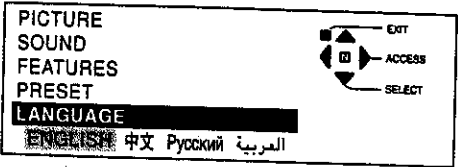
Use Volume Up "+" or Down "-" button to control volume level.



Flow Chart of Main Menu (Remote Control)

When the "MAIN MENU" (EXIT) button is pressed at the Main Menu screen, the screen display will return to the normal viewing condition.

When the "MAIN MENU" (EXIT) button is pressed at each MENU screen (Picture, Sound, Features, Preset, Language), the screen display will return to the Main Menu screen.

| Menu | On Screen Indication | |
|----------|--|--|
| Picture |  <p>PICTURE SOUND FEATURES PRESET LANGUAGE ENGLISH 中文 Русский العربية</p> <p>EXIT ACCESS SELECT</p> |  <p>PICTURE MENU DYNAMIC COLOUR NTSC-TINT BRIGHTNESS CONTRAST SHARPNESS C.TEMP STANDARD P-NR OFF AI OFF</p> |
| | * When NTSC signal is received. | |
| Sound |  <p>PICTURE SOUND FEATURES PRESET LANGUAGE ENGLISH 中文 Русский العربية</p> <p>EXIT ACCESS SELECT</p> |  <p>SOUND MENU DYNAMIC BASS AUTO TREBLE AUTO BALANCE BASS BOOST OFF LOUDNESS OFF SURROUND OFF</p> |
| Features |  <p>PICTURE SOUND FEATURES PRESET LANGUAGE ENGLISH 中文 Русский العربية</p> <p>EXIT ACCESS SELECT</p> |  <p>FEATURES BLUE BACK ON CHILD LOCK OFF VCR/GAME OFF FAVORITE CH ACCESS RGB SKIP OFF WAKE UP TIMER OFF SCAN MODE AUTO 16:9 OFF * 3D-COMB ON</p> |
| | * When NTSC signal is received. | |
| Preset |  <p>PICTURE SOUND FEATURES PRESET LANGUAGE ENGLISH 中文 Русский العربية</p> <p>EXIT ACCESS SELECT</p> |  <p>PRESET CH SELECT POSITION SYS SELECT ASIA/M. EAST AUTO TUNE ACCESS MANUAL TUNE ACCESS POS. SETUP ACCESS TEXT SELECT ENGLISH GEOMAGNETIC</p> |
| Language |  <p>PICTURE SOUND FEATURES PRESET LANGUAGE ENGLISH 中文 Русский العربية</p> <p>EXIT ACCESS SELECT</p> | |

Flow Chart of Main Menu (Remote Control)

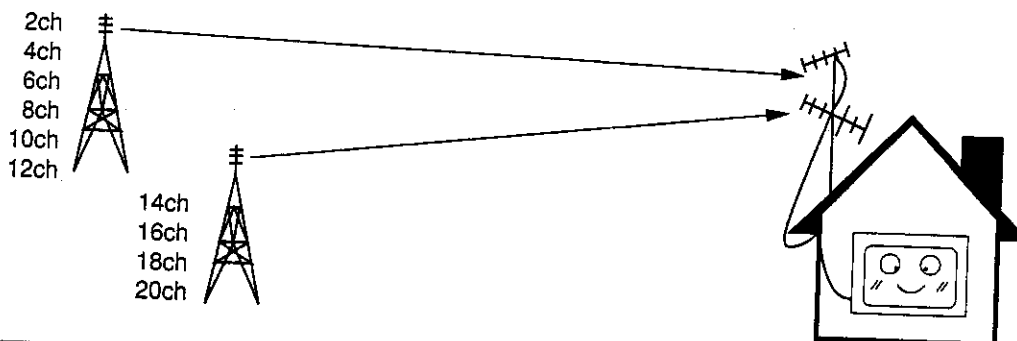
RGB Mode

| Menu | On Screen Indication |
|--------|--|
| Screen | <div><div><div>PICTURE</div><div>SOUND</div><div>FEATURES</div><div>SCREEN</div><div>LANGUAGE</div><div>ENGLISH 中文 Русский العربية</div></div><div><div>EXIT</div><div>ACCESS</div><div>SELECT</div></div></div> <div><div>SCREEN</div><div>H-SIZE</div><div>V-SIZE</div><div>H-POS.</div><div>V-POS.</div><div>PARABOLA</div></div> |

Tuning Procedure

Channel Selection

Select the most easily viewed channel selection method.



Example

| Programme Number | Channel Display | Received Channel |
|------------------|-----------------|------------------|
| 1 | 2 | 2 |
| 2 | 4 | 4 |
| 3 | 6 | 6 |
| 4 | 8 | 8 |
| 5 | 10 | 10 |
| 6 | 12 | 12 |
| 7 | 14 | 14 |
| 8 | 16 | 16 |
| 9 | 18 | 18 |
| 10 | 20 | 20 |

POSITION SELECT

When the Channel Selection is on POSITION, and Auto Tune is performed, the unit memories the channels tuned in order from Programme No. 1.

Press the button ① to view channel 2.

Press the button ② to view channel 4.

Press the button ③ to view channel 6.

During Position mode various reception channels can be viewed.

Example

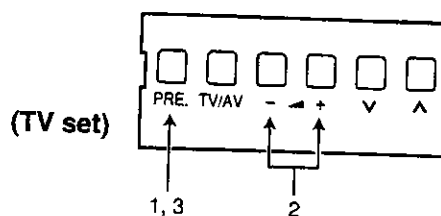
| Programme Number | Channel Display | Received Channel |
|------------------|-----------------|------------------|
| 1 | — | — |
| 2 | 2 | 2 |
| 3 | — | — |
| 4 | 4 | 4 |
| 5 | — | — |
| 6 | 6 | 6 |
| 7 | — | — |
| 8 | 8 | 8 |
| 9 | — | — |
| 10 | 10 | 10 |
| ⋮ | ⋮ | ⋮ |
| 20 | 20 | 20 |
| ⋮ | ⋮ | ⋮ |

DIRECT SELECT

When the Channel Selection is on DIRECT, and Auto Tune is performed, the unit memorise the Programme Number which is the same as the channel tuned.

This method allows you to select the desired channel by pressing the Programme Number directly on the Remote Control to select the channel. The channel display numbers for the broadcast stations in each region are listed on page 21.

Tuning Procedure



Before Country System Selection and AUTO tuning, set the "CHANNEL SELECT" mode, as detailed below.

- 1 Press the "PRE." (PRESET) button, setting the Preset Menu to "CH SELECT".

| | |
|-------------|--------------|
| 2 | CH3 |
| PRESET | |
| CH SELECT | POSITION |
| SYS SELECT | ASIA/M. EAST |
| AUTO TUNE | ACCESS |
| MANUAL TUNE | ACCESS |
| POS. SETUP | ACCESS |
| TEXT SELECT | ENGLISH |
| GEOMAGNETIC | |

"CH SELECT" condition.

- 2 Select the "CH SELECT" (Channel Select) mode by pressing the Volume Up "+" or Down "-" button.

| | |
|-------------|--------------|
| 2 | CH3 |
| PRESET | |
| CH SELECT | POSITION |
| SYS SELECT | ASIA/M. EAST |
| AUTO TUNE | ACCESS |
| MANUAL TUNE | ACCESS |
| POS. SETUP | ACCESS |
| TEXT SELECT | ENGLISH |
| GEOMAGNETIC | |

Setting the range when the "POSITION" has been selected:

Position 0~99

Setting range when the "DIRECT" has been selected:

Channel 1~125

The channel select indicator will change as follows:

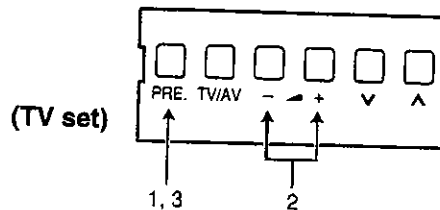
DIRECT ↔ POSITION

- 3 Press the "PRE." (PRESET) button 7 times.

This returns the set to the normal viewing condition.

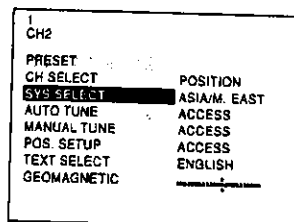
Tuning Procedure

Country System Selection



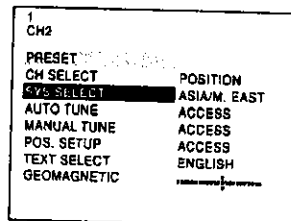
Before AUTO tuning and MANUAL tuning, set the "SYSTEM SELECT" mode, as detailed below.

- 1 Press the "PRE." (PRESET) button twice, setting the Preset Menu to "SYS SELECT".

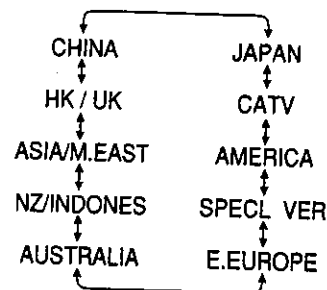


"SYS SELECT" condition.

- 2 Select the appropriate system by pressing the Volume Up "+" or Down "-" button.



The system select indicator will change as follows:



- 3 Press the "PRE." (PRESET) button 6 times.

This returns the set to the normal viewing condition.

System Select by Country

| SYSTEM SELECT | COUNTRY |
|---------------|--|
| CHINA | China |
| HK/UK | Hong Kong, United Kingdom |
| ASIA/M.EAST | Malaysia, Singapore, Thailand, Asia countries, Kuwait, Saudi Arabia, United Arab Emirates, Middle East countries, etc. |
| NZ/INDONES | New Zealand, Indonesia, etc. |
| AUSTRALIA | Australia |
| E.EUROPE | CIS, Poland, etc. |
| SPECL VER | South Africa |
| AMERICA | U.S.A., Chile, Mexico, Panama, Peru, Philippines, Taiwan, Venezuela, etc. |
| CATV | USA CATV |
| JAPAN | Japan |

Tuning Procedure

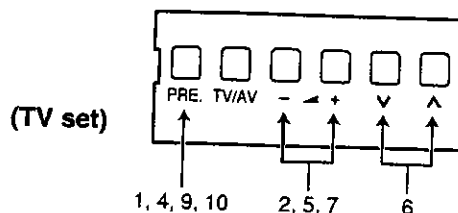
Channel Allocation

- CATV (USA CATV) channel numbers as recommended by the joint EIA/NCTA Engineering committee and published as EIA INTERIM STANDARD No.6-CABLE TELEVISION CHANNEL IDENTIFICATION PLAN-MAY 1983.
- The receiving channels are as follows:

| SYS SELECT | CHINA | HK/UK | ASIA/M.EAST | NZ/INDONES | AUSTRALIA | E.EUROPE | SPECL VER | AMERICA | CATV | JAPAN |
|------------|-----------------|-------|-------------|------------|-----------|----------|-----------|---------|------|-------|
| CH DISPLAY | RECEIVE CHANNEL | | | | | | | | | |
| 0 | - | - | - | - | - | - | - | - | - | - |
| 1 | 1 | - | - | 1 | 0 | 1 | 1 | - | 1 | 1 |
| 2 | 2 | - | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 |
| 3 | - | - | - | - | 2 | - | - | - | - | - |
| 4 | - | - | - | - | 3 | - | - | - | - | - |
| 5 | - | - | - | - | 4 | - | - | - | - | - |
| 6 | - | - | - | - | 5 | - | - | - | - | - |
| 7 | - | - | - | - | S2 | - | - | - | - | - |
| 11 | - | - | 11 | 11 | - | 11 | 11 | - | - | - |
| 12 | 12 | - | 12 | - | - | 12 | 12 | - | - | 12 |
| 13 | 13 | - | - | - | - | - | 13 | 13 | - | 13 |
| 14 | - | - | - | - | - | - | - | 14 | - | - |
| 15 | - | - | - | - | - | - | - | - | - | - |
| 16 | - | - | - | - | S10 | - | - | - | - | - |
| 19 | - | - | - | - | 6 | - | - | - | - | - |
| 20 | - | - | - | - | 9A | - | - | - | - | - |
| 21 | - | 21 | 21 | 21 | 10 | 21 | 21 | - | - | - |
| 22 | - | - | - | - | 11 | - | - | - | - | - |
| 23 | - | - | - | - | 12 | - | - | - | - | - |
| 24 | - | - | - | - | S11 | - | - | - | - | - |
| 28 | - | - | - | - | - | - | - | - | - | - |
| 57 | 57 | - | - | - | S44 | - | - | - | - | - |
| 58 | - | - | - | - | 20 | - | - | - | - | - |
| 59 | - | - | - | - | 21 | - | - | - | - | - |
| 62 | - | 62 | 62 | 62 | - | 62 | 62 | 62 | 62 | 62 |
| 63 | - | 63 | 63 | 63 | - | 63 | 63 | 63 | 63 | C13 |
| 69 | - | 69 | 69 | 69 | - | 69 | 69 | 69 | - | - |
| 70 | - | - | - | - | - | - | - | - | - | - |
| 73 | - | - | - | - | - | - | - | - | - | - |
| 74 | - | - | - | - | - | - | - | - | - | - |
| 75 | - | S1 | S1 | S1 | - | S1 | S1 | - | - | - |
| 76 | - | S2 | S2 | S2 | - | - | S2 | - | - | - |
| 77 | - | S3 | S3 | S3 | - | - | S3 | - | - | - |
| 78 | - | - | - | - | - | - | - | - | - | - |
| 79 | - | - | - | - | - | - | - | - | - | - |
| 80 | - | S1 | S1 | S1 | - | S1 | S1 | - | - | - |
| 81 | Z1 | S2 | S2 | S2 | - | S2 | S2 | - | - | - |
| 89 | Z9 | S10 | S10 | S10 | - | S10 | S10 | - | - | - |
| 90 | Z10 | S11 | S11 | S11 | - | S11 | - | - | - | - |
| 91 | Z11 | S12 | S12 | S12 | - | S12 | - | - | - | - |
| 92 | Z12 | S13 | S13 | S13 | - | S13 | - | - | - | - |
| 93 | Z13 | S14 | S14 | S14 | - | S14 | - | - | - | - |
| 94 | Z14 | S15 | S15 | S15 | - | S15 | S14 | - | - | - |
| 95 | Z15 | S16 | S16 | S16 | - | S16 | S15 | - | - | - |
| 96 | Z16 | S17 | S17 | S17 | - | S17 | S16 | - | - | - |
| 97 | Z17 | S18 | S18 | S18 | - | S18 | S17 | - | - | - |
| 98 | Z18 | S19 | S19 | S19 | - | S19 | S18 | - | - | - |
| 99 | Z19 | S20 | S20 | S20 | - | S20 | S19 | - | 99 | C49 |
| 100 | Z20 | S21 | S21 | S21 | - | S21 | S20 | - | 100 | - |
| 117 | Z37 | - | - | - | 80 | - | - | - | - | - |
| 118 | - | - | - | - | - | - | - | - | - | - |
| 120 | - | S41 | S41 | S41 | - | S41 | S41 | - | - | - |
| 125 | - | - | - | - | - | - | - | - | 125 | - |

Tuning Procedure

Automatic Tune (Channel Select and Country System must already been set; refer to pages 18 to 21)



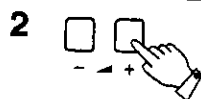
This TV uses automatic tuning to determine whether or not a broadcast signal is being sent which it can receive, and automatically prepares so that the channel selection can respond to both the position select and direct select modes.



Press the "PRE." (PRESET) button 3 times.

| | |
|------------------|--------------|
| CH2 | |
| PRESET | |
| CH SELECT | |
| SYS SELECT | |
| AUTO TUNE | POSITION |
| MANUAL TUNE | ASIA/M. EAST |
| POS. SETUP | ACCESS |
| TEXT SELECT | ACCESS |
| GEOMAGNETIC | ACCESS |
| | ENGLISH |

Automatic Search "AUTO TUNE" condition.



Press the Volume Up "+" or Down "-" button.

| |
|-----------|
| AUTO TUNE |
|-----------|

Search starts.

The best tuning position is automatically memorised.

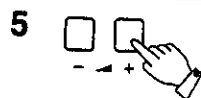
3 After all stations are tuned, the on-screen display will automatically change from "AUTO TUNE" to "CH SELECT" mode.

| | |
|------------------|--------------|
| CH2 | |
| PRESET | |
| CH SELECT | |
| SYS SELECT | |
| AUTO TUNE | POSITION |
| MANUAL TUNE | ASIA/M. EAST |
| POS. SETUP | ACCESS |
| TEXT SELECT | ACCESS |
| GEOMAGNETIC | ACCESS |
| | ENGLISH |



Press the "PRE." (PRESET) button 4 times, setting the Preset Menu to "POS. SETUP".

| | |
|-------------------|--------------|
| CH2 | |
| PRESET | |
| CH SELECT | |
| SYS SELECT | |
| AUTO TUNE | |
| MANUAL TUNE | |
| POS. SETUP | POSITION |
| TEXT SELECT | ASIA/M. EAST |
| GEOMAGNETIC | ACCESS |
| | ACCESS |
| | ENGLISH |



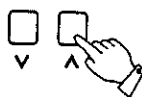
Press the Volume Up "+" or Down "-" button, setting the "POS. SETUP" menu to "SOUND SYS".

| | |
|------------------|--------|
| CH2 | |
| POS. SETUP | |
| SOUND SYS | 5.5MHz |
| COLOUR SYS | AUTO |
| FINE TUNE | ACCESS |
| SKIP | OFF |
| AVL | ON |
| CH COLOUR SET | |

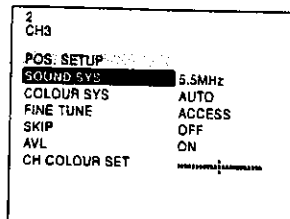
"SOUND SYS" condition.

Tuning Procedure

6



Press the Channel Up “^” or Down “v” button to confirm the sound condition of each Programme Number.

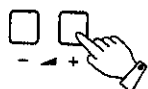


If the sound is not clear or no sound is produced on a Programme Number position, follow the next step.

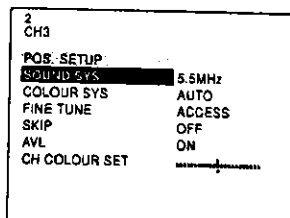
Note:

When sound volume is too small to confirm, turn it up by using the sound volume button on the Remote Control.

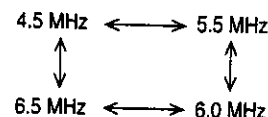
7



If necessary, press the Volume Up “+” or Down “-” button to improve the sound quality.



The sound indicator will change as follows:



8



Use the Programme Number Up “^” or Down “v” button sequentially to check each station. If necessary, repeat steps 6 and 7 for each Programme Number.

9



After all stations are tuned, press the “PRE.” (PRESET) button 6 times, setting it back to “TEXT SELECT”.

10

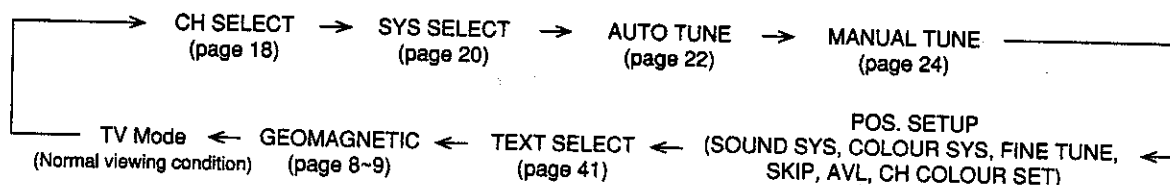


Press the “PRE.” (PRESET) button twice.

This returns the set to the normal viewing condition. Programme Number memory locations.

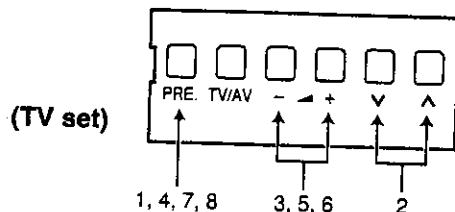
Helpful Hint

- 1) To tune, press the Main Menu button and Position button on the Remote Control. By following the display in the Preset Menu, setting can only be performed using the Remote Control.
- (2) If a clear picture with correct colours cannot be obtained when a broadcast or AV signal is received, refer to the “Colour System Selection” operation on page 39.
- (3) After the Automatic Tune is finished, press the Programme Number Up “^” button to confirm the tuning condition for each Programme Number. If some Programme Numbers are unused, it is possible to skip such Programme Numbers. Please refer to the “Programme Number Skip” operation on page 29.
- (4) Repeatedly pressing the “PRE.” (PRESET) button changes the Preset Menu as follows:



Tuning Procedure

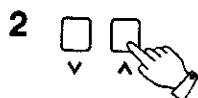
Manual Tune (Channel Select and Country System must already been set; refer to pages 18 to 21)



Press the "PRE." (PRESET) button 4 times.

| | | | |
|-------------|-----------|----------|--------------|
| 1 | CH2 | | |
| PRESET | CH SELECT | POSITION | ASIA/M. EAST |
| SYS SELECT | | ACCESS | |
| AUTO TUNE | | ACCESS | |
| MANUAL TUNE | | ACCESS | |
| POS. SETUP | | ACCESS | |
| TEXT SELECT | | ENGLISH | |
| GEOMAGNETIC | | | |

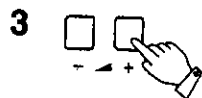
Manual Search "MANUAL TUNE" condition.



Press either the Programme Number Up "^" or Down "v" button.

| | | | |
|-------------|-----------|----------|--------------|
| 2 | CH3 | | |
| PRESET | CH SELECT | POSITION | ASIA/M. EAST |
| SYS SELECT | | ACCESS | |
| AUTO TUNE | | ACCESS | |
| MANUAL TUNE | | ACCESS | |
| POS. SETUP | | ACCESS | |
| TEXT SELECT | | ENGLISH | |
| GEOMAGNETIC | | | |

Select the desired Programme Number.



Press the Volume Up "+" or Down "-" button.

Volume "+": Next higher channel.

Volume "-": Next lower channel.

| | | | |
|-------------|-----------|----------|--------------|
| MANUAL TUNE | | | |
| 2 | CH3 | | |
| PRESET | CH SELECT | POSITION | ASIA/M. EAST |
| SYS SELECT | | ACCESS | |
| AUTO TUNE | | ACCESS | |
| MANUAL TUNE | | ACCESS | |
| POS. SETUP | | ACCESS | |
| TEXT SELECT | | ENGLISH | |
| GEOMAGNETIC | | | |

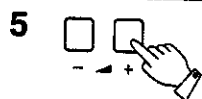
Search starts.

The best tuning position is automatically memorised.



Press the "PRE." (PRESET) button once, setting the Preset Menu to "POS. SETUP".

| | | | |
|-------------|-----------|----------|--------------|
| 2 | CH3 | | |
| PRESET | CH SELECT | POSITION | ASIA/M. EAST |
| SYS SELECT | | ACCESS | |
| AUTO TUNE | | ACCESS | |
| MANUAL TUNE | | ACCESS | |
| POS. SETUP | | ACCESS | |
| TEXT SELECT | | ENGLISH | |
| GEOMAGNETIC | | | |



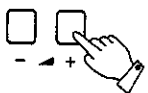
Press the Volume Up "+" or Down "-" button, setting the "POS. SETUP" menu to "SOUND SYS".

| | | | |
|---------------|-----------|--------|--|
| 2 | CH3 | | |
| POS. SETUP | SOUND SYS | 5.5MHz | |
| COLOUR SYS | | AUTO | |
| FINE TUNE | | ACCESS | |
| SKIP | | OFF | |
| AVL | | ON | |
| CH COLOUR SET | | | |

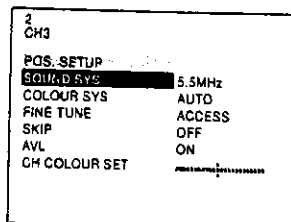
"SOUND SYS" condition.

Tuning Procedure

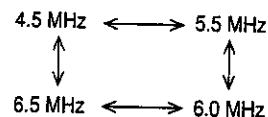
6



If the sound is not clear or no sound is produced on a Programme Number position, press the Volume Up "+" or Down "-" button.



You may improve the sound quality. The sound indicator will change as follows:



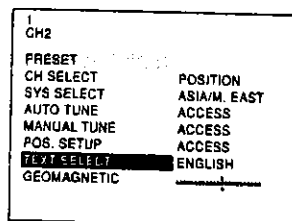
Note:

When sound volume is too small to confirm, turn it up by using the sound volume button on the Remote Control.

7



Press the "PRE." (PRESET) button 6 times, setting it back to "TEXT SELECT".



8



Press the "PRE." (PRESET) button twice.

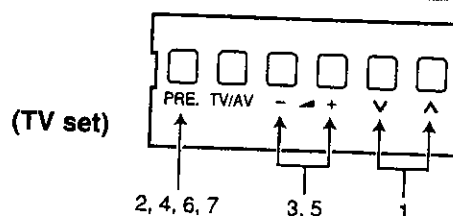
This returns the set to the normal viewing condition.

Helpful Hint

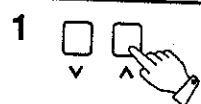
- (1) If a clear picture cannot be obtained even when a broadcast or AV signal is received, refer to the "Colour System Selection" operation on page 39.
- (2) After the Manual Tune is finished, press the Programme Number Up "^" button to confirm the tuning condition for each Programme Number. If some Programme Numbers are unused, it is possible to skip such Programme Numbers. Please refer to the "Programme Number Skip" operation on page 29.
- (3) When using a VCR without video and audio input/output terminals, it is convenient to connect the aerial cable as indicated in the instruction manual of VCR and to set the designated channel to Programme Number "0". In that case, perform Manual Tune after setting the Colour System and Sound System in advance. Further, in multi-system VCR, it is more convenient to set the designated channel to several Programme Numbers.

Tuning Procedure

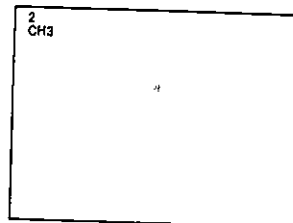
Fine Tuning



Under normal reception conditions, this function is not required or necessary. However, in areas of poor reception or constant interference, a slight adjustment of the tuning may improve the picture and sound quality.



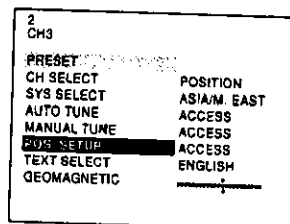
Select the channel which you want to improve using the Programme Number Up “^” or Down “v” button.



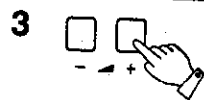
Select the desired Programme Number.



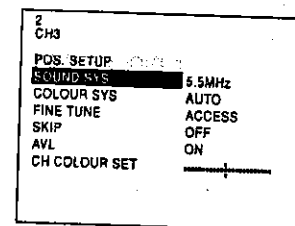
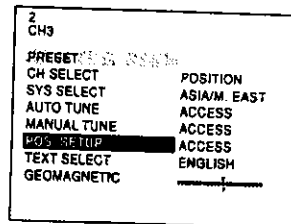
Press the “PRE.” (PRESET) button 5 times, setting the Preset Menu to “POS. SETUP”.



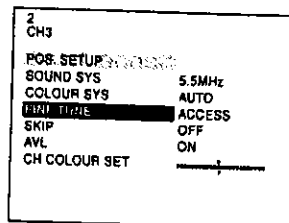
“POS. SETUP” condition.



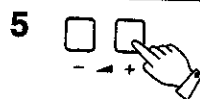
Press the Volume Up “+” or Down “-” button, setting to “POS. SETUP” mode.



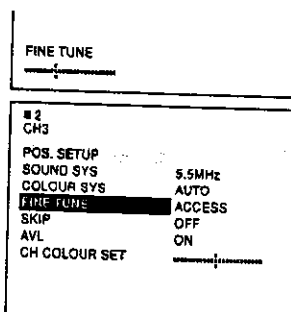
Press the “PRE.” (PRESET) button twice, setting to “FINE TUNE”.



“FINE TUNE” condition.



Press and hold the Volume Up “+” or Down “-” button until the clear picture is received.



Fine Tuning starts.

The AFC function is deactivated.

The “■” symbol appears on the left of the Programme Number.

Tuning Procedure

6



Press the "PRE." (PRESET)
button 4 times, setting it back to
"TEXT SELECT".

| | |
|-------------|--------------|
| 2 | CH3 |
| PRESET | |
| CH SELECT | POSITION |
| SYS SELECT | ASIA/M. EAST |
| AUTO TUNE | ACCESS |
| MANUAL TUNE | ACCESS |
| POS. SETUP | ACCESS |
| TEXT SELECT | ENGLISH |
| GEOMAGNETIC | |

7

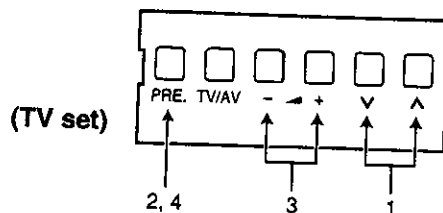


Press the "PRE." (PRESET)
button twice.

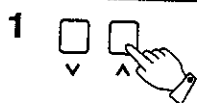
This returns the set to the normal
viewing condition.

Tuning Procedure

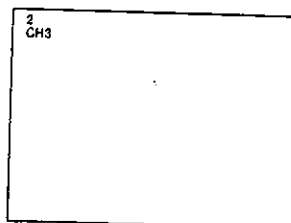
How to Cancel the Fine Tuning



Cancelling previously adjusted (manually) Fine Tuning, means reactivating the AFC (Automatic Frequency Control) function, also known as AFT (Automatic Fine Tuning). Reactivating the Automatic Fine Tuning means allowing the set automatically tune to the optimum tuning position, for that Programme Number.



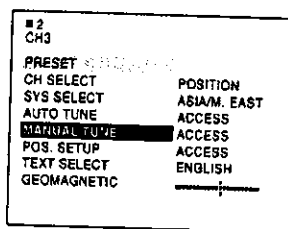
Select the "AFC OFF" Programme Number which you want to return to Automatic Frequency Control (cancel the manual Fine Tuning).



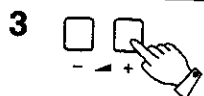
"AFC OFF" Programme Numbers are indicated to you by the "■" symbol to the left of the Programme Number in the on-screen display.



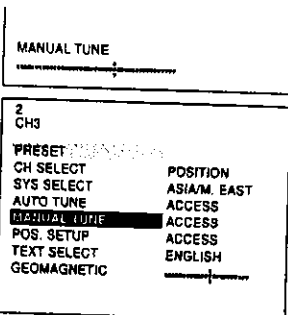
Press the "PRE." (PRESET) button 4 times, setting the Preset Menu to "MANUAL TUNE".



Manual Search condition.



Press the Volume Up "+" or Down "-" button, briefly.



The best tuning position is automatically memorised.

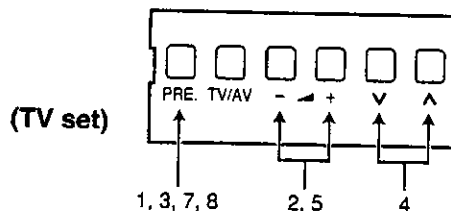


Press the "PRE." (PRESET) button 4 times.

This returns the set to the normal viewing condition.

Tuning Procedure

Programme Number Skip



It is possible to skip Programme Number on which no TV stations are tuned appearing on the screen. The function is only effective when selecting Programme Numbers by pressing the Programme Number Up “^” or Down “V” button either on the TV set or the Remote Control.

- 1 Press the “PRE.” (PRESET) button 5 times, setting the Preset Menu to “POS. SETUP”.
- “POS. SETUP” condition.

| | | | |
|--------|-------------|--------------|--|
| 1 | CH2 | | |
| PRESET | CH SELECT | POSITION | |
| | SYS SELECT | ASIA/M. EAST | |
| | AUTO TUNE | ACCESS | |
| | MANUAL TUNE | ACCESS | |
| | POS. SETUP | ACCESS | |
| | TEXT SELECT | ENGLISH | |
| | GEOMAGNETIC | | |

- 2 Press the Volume Up “+” or Down “-” button, setting to “POS. SETUP” mode.

| | | | |
|--------|-------------|--------------|--|
| 1 | CH2 | | |
| PRESET | CH SELECT | POSITION | |
| | SYS SELECT | ASIA/M. EAST | |
| | AUTO TUNE | ACCESS | |
| | MANUAL TUNE | ACCESS | |
| | POS. SETUP | ACCESS | |
| | TEXT SELECT | ENGLISH | |
| | GEOMAGNETIC | | |

| | | | |
|------------|---------------|--------|--|
| 1 | CH2 | | |
| POS. SETUP | SOUND SYS | 5.5MHz | |
| | COLOUR SYS | AUTO | |
| | FINE TUNE | ACCESS | |
| | SKIP | OFF | |
| | AVL | ON | |
| | CH COLOUR SET | | |

- 3 Press the “PRE.” (PRESET) button 3 times, setting to “SKIP”.
- Channel Skip condition.

| | | | |
|------------|---------------|--------|--|
| 1 | CH2 | | |
| POS. SETUP | SOUND SYS | 5.5MHz | |
| | COLOUR SYS | AUTO | |
| | FINE TUNE | ACCESS | |
| | SKIP | OFF | |
| | AVL | ON | |
| | CH COLOUR SET | | |


- 4 Select a Programme Number you want to skip by pressing the Programme Number Up “^” or Down “V” button.


| | | | |
|------------|---------------|--------|--|
| 2 | CH3 | | |
| POS. SETUP | SOUND SYS | 5.5MHz | |
| | COLOUR SYS | AUTO | |
| | FINE TUNE | ACCESS | |
| | SKIP | OFF | |
| | AVL | ON | |
| | CH COLOUR SET | | |

- 5 Press the Volume Up “+” or Down “-” button.
- The displayed “OFF” condition changes to “ON”.

| | | | |
|------------|---------------|--------|--|
| 2 | CH3 | | |
| POS. SETUP | SOUND SYS | 5.5MHz | |
| | COLOUR SYS | AUTO | |
| | FINE TUNE | ACCESS | |
| | SKIP | ON | |
| | AVL | ON | |
| | CH COLOUR SET | | |


Tuning Procedure

- 6  Repeat Steps 4 and 5 for the remaining Programme Numbers for which the Skip function is desired.

- 7  After the Skip operation is completed, press the "PRE." (PRESET) button 3 times, setting it back to "TEXT SELECT".

| | |
|-------------|--------------|
| 2 | CH3 |
| PRESET | |
| CH SELECT | POSITION |
| SYS SELECT | ASIA/M. EAST |
| AUTO TUNE | ACCESS |
| MANUAL TUNE | ACCESS |
| POS. SETUP | ACCESS |
| TEXT SELECT | ENGLISH |
| GEOMAGNETIC | |

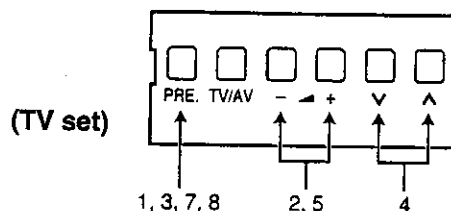
"TEXT SELECT" condition.

- 8  Press the "PRE." (PRESET) button twice.

This returns the set to the normal viewing condition.

Tuning Procedure

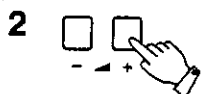
How to Cancel the Skip Function



Press the "PRE." (PRESET) button 5 times, setting the Preset Menu to "POS. SETUP".

| | |
|-------------|--------------|
| CH2 | |
| PRESET | |
| CH SELECT | POSITION |
| SYS SELECT | ASIA/M. EAST |
| AUTO TUNE | ACCESS |
| MANUAL TUNE | ACCESS |
| POS. SETUP | ACCESS |
| TEXT SELECT | ENGLISH |
| GEOMAGNETIC | |

"POS. SETUP" condition.



Press the Volume Up "+" or Down "-" button, setting to "POS. SETUP" mode.

| | |
|-------------|--------------|
| CH2 | |
| PRESET | |
| CH SELECT | POSITION |
| SYS SELECT | ASIA/M. EAST |
| AUTO TUNE | ACCESS |
| MANUAL TUNE | ACCESS |
| POS. SETUP | ACCESS |
| TEXT SELECT | ENGLISH |
| GEOMAGNETIC | |

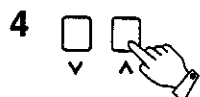
| | |
|---------------|--------|
| CH2 | |
| POS. SETUP | |
| SOUND SYS | 5.5MHz |
| COLOUR SYS | AUTO |
| FINE TUNE | ACCESS |
| SKIP | OFF |
| AVL | ON |
| CH COLOUR SET | |



Press the "PRE." (PRESET) button 3 times, setting to "SKIP".

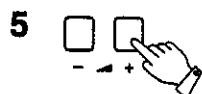
| | |
|---------------|--------|
| CH2 | |
| POS. SETUP | |
| SOUND SYS | 5.5MHz |
| COLOUR SYS | AUTO |
| FINE TUNE | ACCESS |
| SKIP | OFF |
| AVL | ON |
| CH COLOUR SET | |

Channel Skip condition.



Select a Programme Number you want to skip by pressing the Programme Number Up "^" or Down "v" button.

| | |
|---------------|--------|
| CH3 | |
| POS. SETUP | |
| SOUND SYS | 5.5MHz |
| COLOUR SYS | AUTO |
| FINE TUNE | ACCESS |
| SKIP | ON |
| AVL | ON |
| CH COLOUR SET | |





Press the Volume Up "+" or Down "-" button.

| | |
|---------------|--------|
| CH3 | |
| POS. SETUP | |
| SOUND SYS | 5.5MHz |
| COLOUR SYS | AUTO |
| FINE TUNE | ACCESS |
| SKIP | OFF |
| AVL | ON |
| CH COLOUR SET | |

The displayed "ON" condition changes to "OFF".

Tuning Procedure

- 6  Repeat Steps 4 and 5, if you wish to cancel the Skip function on any other Programme Number.

- 7  After the Skip cancel operation is completed, press the "PRE." (PRESET) button 3 times, setting it back to "TEXT SELECT".

| | |
|-------------|--------------|
| 2 | CH3 |
| PRESET | |
| CH SELECT | POSITION |
| SYS SELECT | ASIA/M. EAST |
| AUTO TUNE | ACCESS |
| MANUAL TUNE | ACCESS |
| POS. SETUP | ACCESS |
| TEXT SELECT | ENGLISH |
| GEOMAGNETIC | |

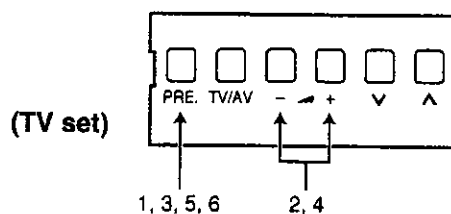
"TEXT SELECT" condition.

- 8  Press the "PRE." (PRESET) button twice.

This returns the set to the normal viewing condition.

Tuning Procedure

AVL (Auto Volume Limiter)



The AVL function will limit the volume output for music, speech and movie at preset level when it is on.

- 1** Press the "PRE." (PRESET) button 5 times, setting the Preset Menu to "POS. SETUP".

| | |
|-------------|--------------|
| 1 CH2 | |
| PRESET | POSITION |
| CH SELECT | ASIA/M. EAST |
| SYS SELECT | ACCESS |
| AUTO TUNE | ACCESS |
| MANUAL TUNE | ACCESS |
| POS. SETUP | ACCESS |
| TEXT SELECT | ENGLISH |
| GEOMAGNETIC | |

"POS. SETUP" condition.

- 2** Press the Volume Up "+" or Down "-" button, setting to "POS. SETUP" mode.

| | |
|-------------|--------------|
| 1 CH2 | |
| PRESET | POSITION |
| CH SELECT | ASIA/M. EAST |
| SYS SELECT | ACCESS |
| AUTO TUNE | ACCESS |
| MANUAL TUNE | ACCESS |
| POS. SETUP | ACCESS |
| TEXT SELECT | ENGLISH |
| GEOMAGNETIC | |

| | |
|---------------|--------|
| 1 CH2 | |
| POS. SETUP | |
| SOUND SYS | 5.5MHz |
| COLOUR SYS | AUTO |
| FINE TUNE | ACCESS |
| SKIP | OFF |
| AVL | ON |
| CH COLOUR SET | |

- 3** Press the "PRE." (PRESET) button 4 times, setting to "AVL".

| | |
|---------------|--------|
| 1 CH2 | |
| POS. SETUP | |
| SOUND SYS | 5.5MHz |
| COLOUR SYS | AUTO |
| FINE TUNE | ACCESS |
| SKIP | OFF |
| AVL | ON |
| CH COLOUR SET | |

"AVL" condition.

- 4** Press the Volume Up "+" or Down "-" button.

| | |
|---------------|--------|
| 1 CH2 | |
| POS. SETUP | |
| SOUND SYS | 5.5MHz |
| COLOUR SYS | AUTO |
| FINE TUNE | ACCESS |
| SKIP | OFF |
| AVL | OFF |
| CH COLOUR SET | |

The displayed "ON" condition changes to "OFF".

- 5** Press the "PRE." (PRESET) button twice, setting it back to "TEXT SELECT".

| | |
|-------------|--------------|
| 1 CH2 | |
| PRESET | POSITION |
| CH SELECT | ASIA/M. EAST |
| SYS SELECT | ACCESS |
| AUTO TUNE | ACCESS |
| MANUAL TUNE | ACCESS |
| POS. SETUP | ACCESS |
| TEXT SELECT | ENGLISH |
| GEOMAGNETIC | |

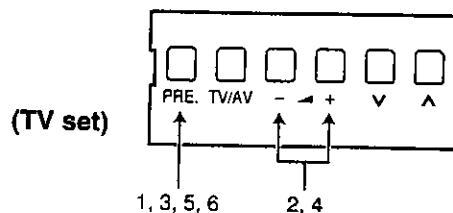
"TEXT SELECT" condition.

- 6** Press the "PRE." (PRESET) button twice.

This returns the set to the normal viewing condition.

Tuning Procedure

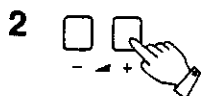
CH Colour Set



Press the "PRE." (PRESET) button 5 times, setting the Preset Menu to "POS. SETUP".

| | | |
|---|-------------|--------------|
| 1 | CH2 | |
| | PRESET | |
| | CH SELECT | POSITION |
| | SYS SELECT | ASIA/M. EAST |
| | AUTO TUNE | ACCESS |
| | MANUAL TUNE | ACCESS |
| | POS. SETUP | ACCESS |
| | TEXT SELECT | ENGLISH |
| | GEOMAGNETIC | |

"POS. SETUP" condition.



Press the Volume Up "+" or Down "-" button, setting to "POS. SETUP" mode.

| | | |
|---|-------------|--------------|
| 1 | CH2 | |
| | PRESET | |
| | CH SELECT | POSITION |
| | SYS SELECT | ASIA/M. EAST |
| | AUTO TUNE | ACCESS |
| | MANUAL TUNE | ACCESS |
| | POS. SETUP | ACCESS |
| | TEXT SELECT | ENGLISH |
| | GEOMAGNETIC | |



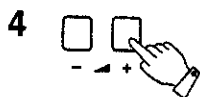
| | | |
|---|---------------|--------|
| 1 | CH2 | |
| | POS. SETUP | |
| | SOUND SYS | 5.5MHz |
| | COLOUR SYS | AUTO |
| | FINE TUNE | ACCESS |
| | SKIP | OFF |
| | AVL | ON |
| | CH COLOUR SET | |



Press the "PRE." (PRESET) button 5 times, setting to "CH COLOUR SET".

| | | |
|---|---------------|--------|
| 1 | CH2 | |
| | POS. SETUP | |
| | SOUND SYS | 5.5MHz |
| | COLOUR SYS | AUTO |
| | FINE TUNE | ACCESS |
| | SKIP | OFF |
| | AVL | ON |
| | CH COLOUR SET | |

"CH COLOUR SET" condition.



Colour density varying between broadcast channels can be adjusted to three levels of each reception channel by pressing the Volume Up "+" or Down "-" button.

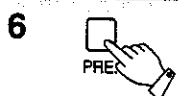
| | | |
|---|---------------|--------|
| | | |
| 1 | CH2 | |
| | POS. SETUP | |
| | SOUND SYS | 5.5MHz |
| | COLOUR SYS | AUTO |
| | FINE TUNE | ACCESS |
| | SKIP | OFF |
| | AVL | ON |
| | CH COLOUR SET | |



Press the "PRE." (PRESET) button once.

| | | |
|---|-------------|--------------|
| 1 | CH2 | |
| | PRESET | |
| | CH SELECT | POSITION |
| | SYS SELECT | ASIA/M. EAST |
| | AUTO TUNE | ACCESS |
| | MANUAL TUNE | ACCESS |
| | POS. SETUP | ACCESS |
| | TEXT SELECT | ENGLISH |
| | GEOMAGNETIC | |

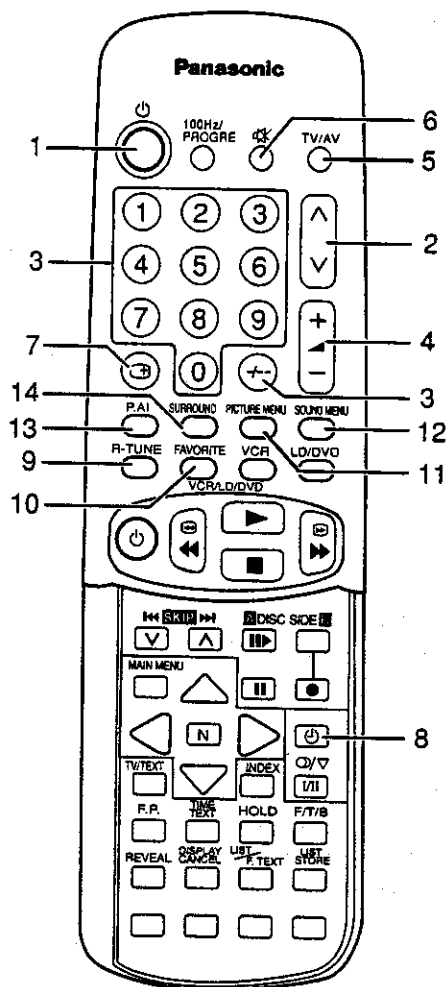
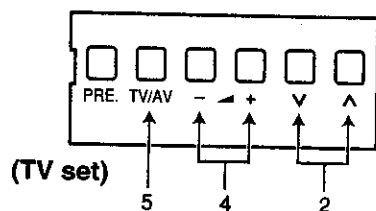
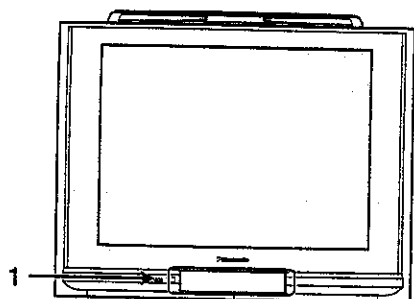
"TEXT SELECT" condition.



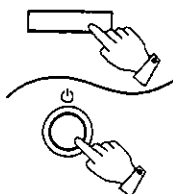
Press the "PRE." (PRESET) button twice.

This returns the set to the normal viewing condition.

General Operation



1



How to switch the power ON or OFF

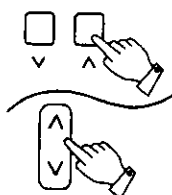
The TV set must first be switched on at the wall outlet and at the Power Switch (refer to page 7). Press this button to turn the TV set ON, from STANDBY mode.

Press it again to turn the TV set OFF, STANDBY mode.

Note:

It is also possible to turn the TV set on STANDBY by pressing the "Direct Programme Number Selection" buttons (0~9) and the "Programme Number Up" or "Down" button, either on the set or on the Remote Control.

2



Programme Number Selection

Press the Programme Number Up "▲" or Down "▼" button to select the next higher or lower Programme Number.

3



Direct Programme Number Selection (CH SELECT = POS.)

You can select the numbers directly by pressing "0~9" buttons and the two digit numbers by pressing "Two Digit" and "Programme Number" buttons.

Programme Number 8..... ⑧

Programme Number 12..... ①, ②

Direct Programme Number Selection (CH SELECT = DIRECT)

You can select the number directly by pressing the corresponding Programme Number button.

Programme Number 8..... ⑧

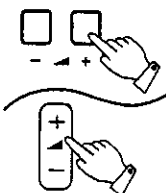
Programme Number 36..... ③, ⑥

Programme Number 124..... ①, ②, ④

Note:

When the Skip setting for Programme Number 100 through 125 is on, the channel selection time will be shortened, and thus you cannot input three digits at a time.

4



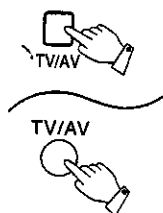
Volume Adjustment

Press the Volume Up "+" or Down "-" button to increase or decrease the sound volume level.

VOLUME 12

General Operation

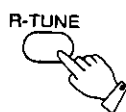
5



TV/AV Mode Selection

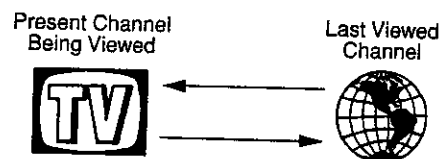
Press the "TV/AV" button to select TV, AV1, AV2, AV3, AV4, RGB input signal modes sequentially.

9

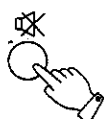


Rapid Tune Button

Press the button to access previously viewed channel.



6



Mute Button

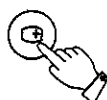
Press this button to mute the sound completely. The "MUTE" symbol will appear. (Colour will change to red.) Press the button once again to restore the previous sound level and cancel the mute.

10



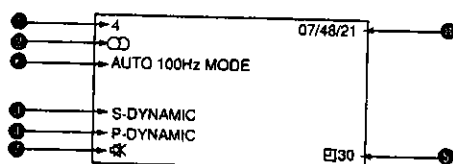
How to use FAVORITE CH mode
Refer to page 48.

7



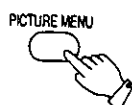
Recall Button

Press the "Recall" button to display the current system status. Press again to cancel.



- 1 Programme Number
- 2 Audio Mode
- 3 Sound Menu
- 4 Picture Menu
- 5 Off Timer
- 6 Scan Mode Status
- 7 Mute
- 8 Time Text

11

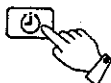


Picture Menu Operation

By pressing the PICTURE MENU button, you can sequentially select the Picture menus as shown below:

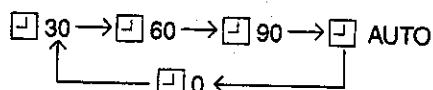
| On-screen | Function |
|-----------|--|
| DYNAMIC | For watching in brighter environments. This menu selects a higher than normal level of contrast. |
| STANDARD | For watching in normal (evening) environments. This menu selects normal level of contrast. |
| SOFT | For watching in dark environments. This menu selects reduced level of contrast. |

8



Off Timer Button

The TV set may be preset to switch to stand-by after a fixed period. By pressing "OFF-Timer" button, you can select the preset time; either "30", "60", "90" minutes or AUTO mode.

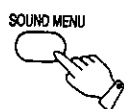


Setting Off-Timer to AUTO mode. If the set is not switched off when the TV station stops broadcasting, it will automatically go to Stand-by Mode after 5 minutes.

Note:

Off-Timer setting will not operate in AUTO mode when the Television set is in AV mode.

12



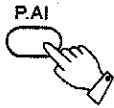
Sound Menu Operation

By pressing the SOUND MENU button, you can sequentially select the Sound menus as shown below:

| On-screen | Function |
|-----------|--|
| DYNAMIC | Amplifies the Low frequencies and outputs optimum sound. For music programmes for example. |
| STANDARD | For Normal use. |
| SOFT | Human voices (middle pitch sounds) will sound clearer. |

General Operation

13



P.A.I Mode (No indication in RGB input mode)

The P.A.I continuously detects fine differences in the picture signal, with great precision and including the picture brightness, black level and contrast.

This function automatically adjusts the picture to the best quality for the scene and reproduces images that provide a sense of depth.

The Picture AI mode will change as shown:

ON ↔ OFF

14



Surround Sound Operation

The benefit of surround sound are enormous. With additional speakers you can be completely enveloped in sound; just as if you were at a concert hall or cinema.

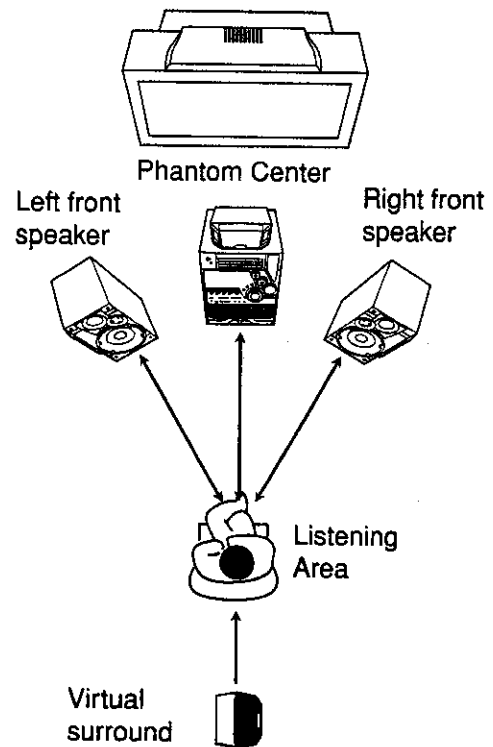
The surround effect does operate without external surround speakers, but is enhanced when they are connected. Such near surround speakers should not be sited in direct proximity to the listeners.

On-screen display during surround mode.

| Type of broadcast | On-screen display |
|-------------------|--|
| TV/AV MODE | <div style="text-align: center;"> OFF ↓ VIRTUAL ↓ SPATIAL </div> |

Virtual

A Virtual Surround System attempts to create the same surround effect produced by a multichannel system using only the left and right speakers.



(Virtual Dolby Surround System)

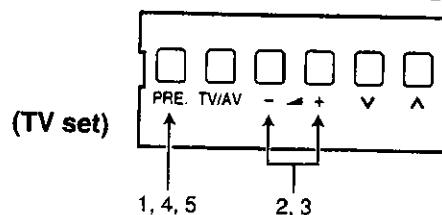
The general conceptual model of a Virtual Dolby Surround System divides the center signal equally between the left and right speakers to achieve a Phantom Center Image and process the Virtual surround signal via a Virtualizer before sending it to the left and right speakers, creating a virtualized image around the listener. The virtual effect is stronger with Dolby Surround encoded movies.

SPATIAL

Spatial Surround modes allow various types of surround effects to be produced by mimicking both the direct sound, as heard by the audience, and the sound reflected back from the surrounding.

General Operation

Sound System Selection (Different countries use differing systems)



This function is used only in the TV mode, and is not applicable in AV Mode when the sound is not clear or no sound is produced on a Programme Number.

- 1** Press the "PRE." (PRESET) button 5 times, setting the Preset Menu to "POS. SETUP".

2 CH3

| | |
|-------------------|-------------|
| PRESET | POSITION |
| CH SELECT | ASIAM. EAST |
| SYS SELECT | ACCESS |
| AUTO TUNE | ACCESS |
| MANUAL TUNE | ACCESS |
| POS. SETUP | ACCESS |
| TEXT SELECT | ENGLISH |
| GEOMAGNETIC | |

"POS. SETUP" condition.

- 2** Press the Volume Up "+" or Down "-" button, setting to "POS. SETUP" mode.

2 CH3

| | |
|-------------------|--------|
| POS. SETUP | |
| SOUND SYS | 5.5MHz |
| COLOUR SYS | AUTO |
| FINE TUNE | ACCESS |
| SKIP | OFF |
| AVL | ON |
| CH COLOUR SET | |

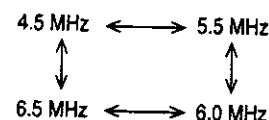
"SOUND SYS" condition.

- 3** Press the Volume Up "+" or Down "-" button repeatedly until the optimum sound is obtained.

2 CH3

| | |
|-------------------|--------|
| POS. SETUP | |
| SOUND SYS | 5.5MHz |
| COLOUR SYS | AUTO |
| FINE TUNE | ACCESS |
| SKIP | OFF |
| AVL | ON |
| CH COLOUR SET | |

The Sound System will change as shown:



Note:
These are different sound broadcast transmission systems applicable to differing countries.

- 4** Press the "PRE." (PRESET) button 6 times, setting to "TEXT SELECT" in Preset Menu.

2 CH3

| | |
|--------------------|-------------|
| PRESET | POSITION |
| CH SELECT | ASIAM. EAST |
| SYS SELECT | ACCESS |
| AUTO TUNE | ACCESS |
| MANUAL TUNE | ACCESS |
| POS. SETUP | ACCESS |
| TEXT SELECT | ENGLISH |
| GEOMAGNETIC | |

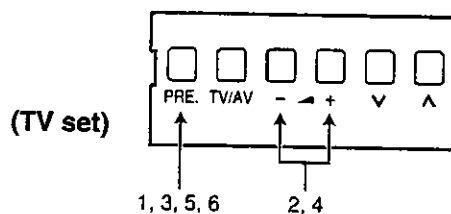
- 5** Press the "PRE." (PRESET) button twice.

This returns the set to the normal viewing condition.

The selected Sound System is automatically memorised.

General Operation

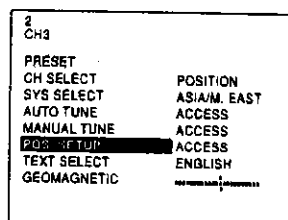
Colour System Selection (Different countries use differing systems)



If a clear picture with current colours cannot be obtained when a broadcast or AV signal is received.



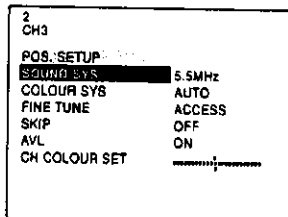
Press the "PRE." (PRESET) button 5 times, setting the Preset Menu to "POS. SETUP". (In AV mode, it is only necessary to press the "PRE." (PRESET) button once.)



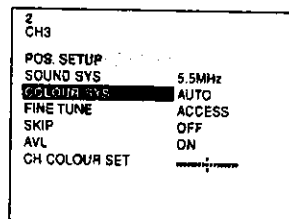
"POS. SETUP" condition.



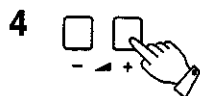
Press the Volume Up "+" or Down "-" button, setting to "POS. SETUP" mode.



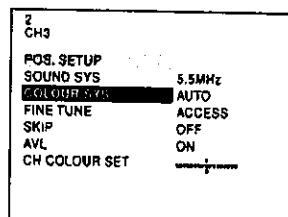
Press the "PRE." (PRESET) button once, setting to "COLOUR SYS".



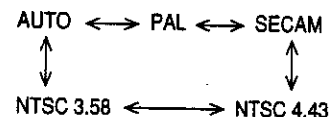
"COLOUR SYS" condition.



Press the Volume Up "+" or Down "-" button repeatedly until the optimum image is produced.



The Colour System will change as shown:



Note:

- (1) The Preset mode of DVD main picture (Y, P_B, P_R) is the setting for AV4.
- (2) PAL, SECAM and NTSC 3.58 are different colour signal broadcast transmission systems applicable to differing countries. NTSC 4.43 is a trick playback mode used in special VCRs to playback NTSC recorded video tapes through PAL television equipment.

General Operation

5



Press the "PRE." (PRESET) button 5 times, setting it back to "TEXT SELECT".

| | |
|-------------|--------------|
| 2 | CH3 |
| PRESET | |
| CH SELECT | POSITION |
| SYS SELECT | ASIA/M. EAST |
| AUTO TUNE | ACCESS |
| MANUAL TUNE | ACCESS |
| POS. SETUP | ACCESS |
| TEXT SELECT | ENGLISH |
| GEOMAGNETIC | |

6



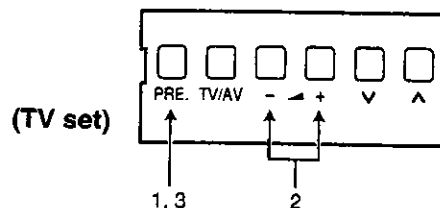
Press the "PRE." (PRESET) button twice. (In AV mode, press the "PRE." (PRESET) button 5 times.)

This returns the set to the normal viewing condition.

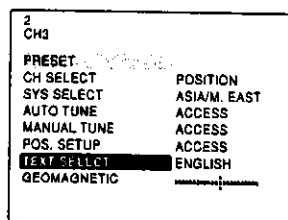
The selected Colour System is automatically memorised.

General Operation

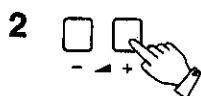
Text Select



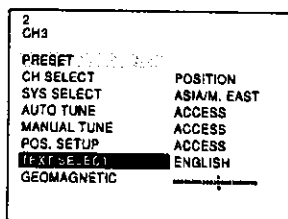
Press the "PRE." (PRESET) button 6 times, setting the Preset Menu to "TEXT SELECT".



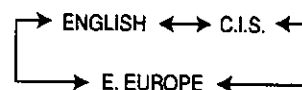
"TEXT SELECT" condition.



Press the Volume Up "+" or Down "-" button repeatedly to select option matching the text signal being received.



The Text Select mode will change as shown:



| DISPLAY | LANGUAGE |
|-----------|--|
| ENGLISH | English |
| C.I.S. | Russian, Estonian, Lithuanian, Ukraine |
| E. EUROPE | Polish, Czech, Serbian, Rumanian |

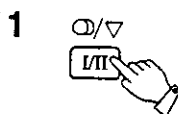
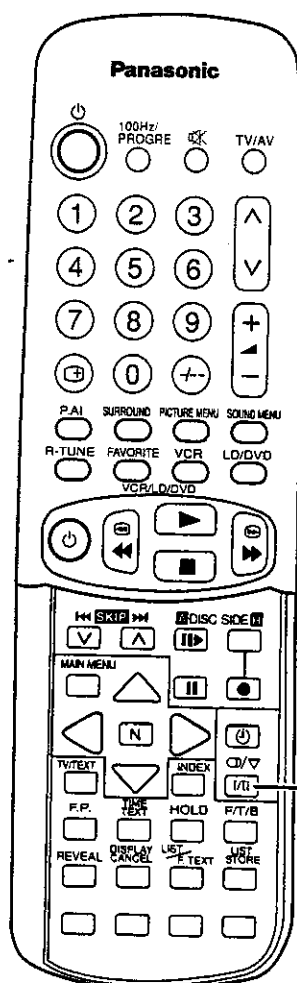


Press the "PRE." (PRESET) button twice.

This returns the set to the normal viewing condition.

Advanced Remote Control Operation

Stereo Reception



When you receive the stereo/bilingual sound system, sound output modes can be selected by pressing the stereo/bilingual sound selection button.

| Audio Signal | Mode Indicator |
|--------------|----------------|
| STEREO | ∞ |
| MAIN I | I |
| SUB II | II |
| MONO | ▽ |

| | Type of broadcast | Mode Indicator |
|-------------|--|----------------------|
| NICAM | Regular broadcast (Standard Audio) | No Indicator |
| | Regular + NICAM MONO I (MAIN I) | I ↔ ▽ |
| | NICAM STEREO | ∞ ↔ ▽ |
| | NICAM DUAL MONO (MAIN I / SUB II) | I → II I ↔ ▽ ↔ II |
| A2 (German) | Regular broadcast (Standard Audio) | No Indicator |
| | BILINGUAL or DUAL MONO : MAIN I / SUB II | I ↔ II |
| | STEREO | ∞ ↔ ▽ |

Note:

- (1) The "A2 (German)" stereo/bilingual TV sound transmission system is used in the following countries; Australia, Malaysia, Thailand, Indonesia, etc.

The "NICAM" stereo TV sound transmission system is used in the following countries; New Zealand, Singapore, Hong Kong and China.

- (2) If the stereo signal is poor or the receiving conditions are not optimum or if STEREO: MONO automatic switching occurs, it is recommended you switch from STEREO to MONO.

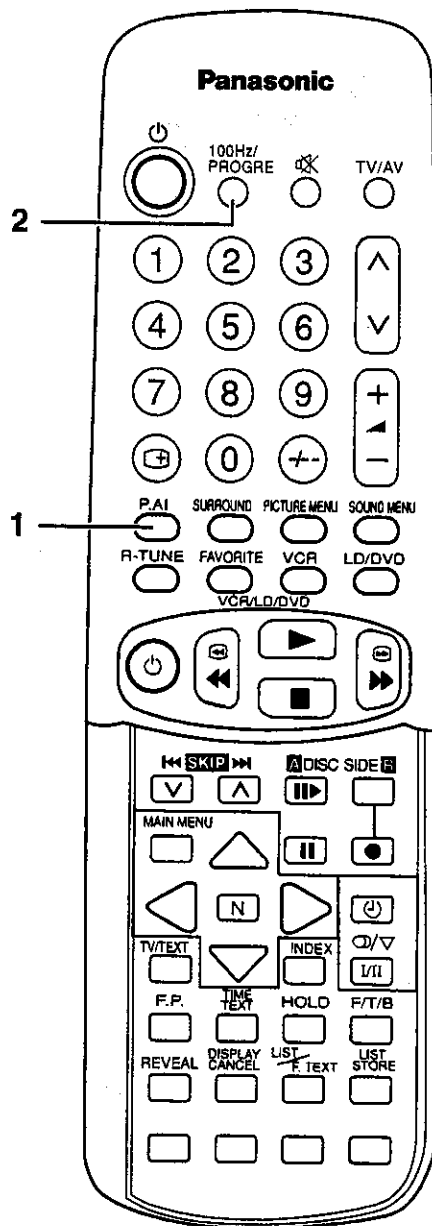
When the broadcasting mode changes to "STEREO", or "MONO" after you have selected "MONO" mode, change over "STEREO" mode will be made automatically.

Note:

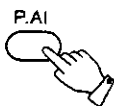
- (1) Even when the contents of the receiving signal undergo changes, selection mode is kept intact.
- (2) When the receiving conditions deteriorate, listening will be easier if the mode is set to the "MONO" position, using the stereo/bilingual sound selection button.
- (3) "DUAL", also known as "DUAL MONO" or as "BILINGUAL" is not currently transmitted in some countries.

Advanced Remote Control Operation

P.AI and 100Hz/PROGRE Operation



1



P.AI (Picture-Artificial Intelligence)

The P.AI continuously detects fine difference in the picture signal, with great precision, and including the picture brightness, black level and contrast. This function automatically adjusts the picture to the best quality for the scene, and reproduces images that provide a sense of depth.

2

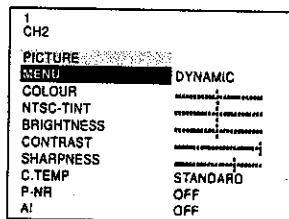
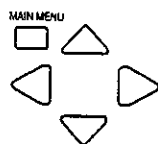
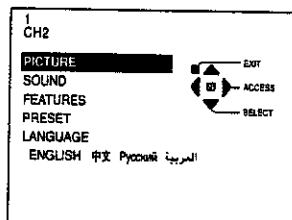


100Hz/PROGRE

Refer to page 49.

Main Menu Operation

Picture Menu Operation












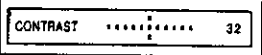


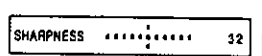







- 1 Press the "Main Menu" button.
- 2 Select the "Picture" Menu by pressing the Position Up "▲" or Down "▼" button and access the "Picture" Menu by pressing the Position Left "◀" or Right "▶" button.
- 3 Choose the option and adjust by pressing the Position Up "▲" or Down "▼" button, and by setting with the Position Left "◀" or Right "▶" button.

| Picture Menu | Function |
|--------------|--|
| DYNAMIC | For viewing in brighter environments. This menu selects a higher than normal levels of Brightness and Contrast. |
| STANDARD | For viewing in normal (evening lighting) environments. This menu selects the normal levels of Brightness and Contrast. |
| SOFT | For viewing in a dark room. This menu selects reduced levels of Brightness and Contrast. |

- 1 You can change the level of each Function (COLOUR, NTSC-TINT, BRIGHTNESS, CONTRAST, SHARPNESS, C.TEMP, P-NR, AI) for each Picture Menu.
- 2 Picture menu mode will be memorized for each TV, AV1, AV2, AV3 and AV4 mode.

Main Menu Operation

| Item | Effect | Indicator |
|------------|---|---|
| COLOUR |   Less More |  |
| NTSC-TINT |   Reddish Greenish |  |
| BRIGHTNESS |   Darker Brighter |  |
| CONTRAST |   Less More |  |
| SHARPNESS |   Less More |  |
| C.TEMP |  | C.TEMP |
| P-NR |   ON ↔ OFF | P-NR |
| AI |   ON ↔ OFF | AI |

Note:

- 1 Even if the TV is not set to "NTSC" mode, "NTSC-TINT" will be displayed and level adjustment would be possible. But it will not function.
- 2 When the RGB/TEXT mode, NTSC-TINT and SHARPNESS will not displayed.

Helpful Hint (**N** Normalisation)

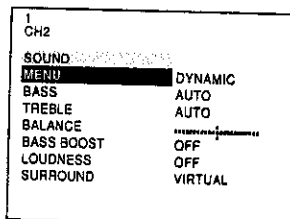
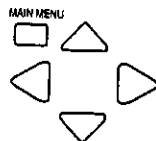
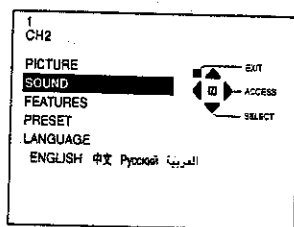
By pressing the Normal "N" button on the Remote Control while the Picture Menu is displayed, the selected menu will be changed to the Normal Mode.

Normalisation will not occur if the menu is not displayed when the "N" button is pressed. The Normal mode is the factory preset condition.

Returning to this original condition is called "Normalisation".

Main Menu Operation

Sound Menu Operation



- 1 Press the "Main Menu" button.
- 2 Select the "SOUND" Menu by pressing the Position Up "▲" or Down "▼" button and access the "SOUND" Menu by pressing the Position Left "◀" or Right "▶" button.
- 3 Choose the option and adjust by pressing the Position Up "▲" or Down "▼" button, and by setting with the Position Left "◀" or Right "▶" button.

| Sound Menu | Function |
|------------|--|
| DYNAMIC | Amplifies the Low frequencies and outputs optimum sound. For music programmes for example. |
| STANDARD | For Normal use. |
| SOFT | Human voices (middle pitch sounds) will sound clearer. |

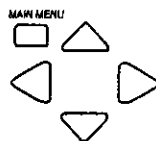
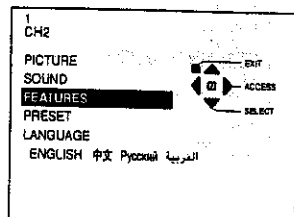
| Press | Item | Effect | Indicator |
|--------|------------|--------------------------------|------------------|
| Select | BASS | Less More | BASS 32 |
| Select | TREBLE | Less More | TREBLE 32 |
| Select | BALANCE | Left Sp. Right Sp. | BALANCE 32 |
| Select | BASS BOOST | ON ↔ OFF | BASS BOOST |
| Select | LOUDNESS | ON ↔ OFF | LOUDNESS |
| Select | SURROUND | → VIRTUAL ↔ SPATIAL → OFF ← | SURROUND |

Helpful Hint (N Normalisation)

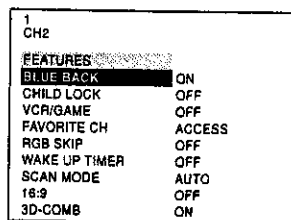
By pressing the Normal "N" button on the Remote Control while the Sound Menu is displayed, the selected menu will be changed to the Normal Mode. Normalisation will not occur if the menu is not displayed when the "N" button is pressed. The Normal mode is the factory preset condition. Returning to this original condition is called "Normalisation".

Main Menu Operation

Features Menu Operation



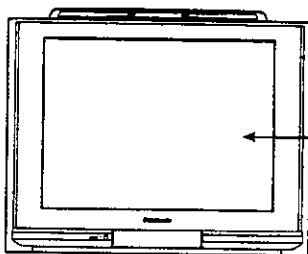
- 1 Press the "Main Menu" button.
- 2 Select the "FEATURES" Menu by pressing the Position Up "^" or Down "v" button and access the "FEATURES" Menu by pressing the Position Left "<" or Right ">" button.
- 3 Choose the option and adjust by pressing the Position Up "^" or Down "v" button, and by setting with the Position Left "<" or Right ">" button.



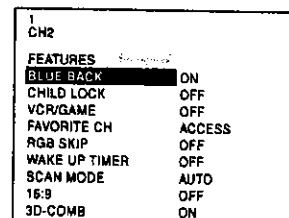
BLUE BACK Mode

When no picture signal is received, or the signal is weak, the screen reverts to a blue background colour and the sound is muted.

Disable this features to continue watching very weak signals.



Blue background colour if no input picture signal or input signal is weak.



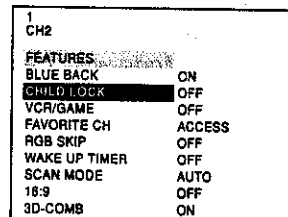
Note:

If "BLUE BACK" Mode is set on while a VCR signal is being viewed, selecting CUE or REVIEW may cause the screen to revert to blue background colour. Disable this feature to view correctly.

CHILD LOCK Mode

To child lock any channel, press the Position Left "<" or Right ">" button.

- 1) When channel is "LOCK", sound is muted and screen becomes black colour.
- 2) If any of the channels is Child Locked, the "PRE." (PRESET) button on the front panel will not function. If the "PRE." (PRESET) button is pressed, the CHILD LOCK symbol will appear.
- 3) Main power ON in child locked channel will display CHILD LOCK symbol on the screen to remind user that the Child Lock is ON and is in child locked channel.
- 4) Each channel has its own memory for channels to be child locked.

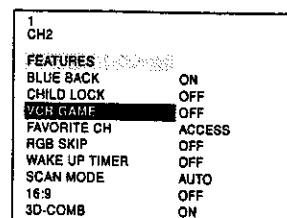


VCR/GAME Mode

Reproduction of irregular signals, such as TV games and rental video tapes, may be improved.

The VCR/GAME mode will change as shown:

ON ↔ OFF



Main Menu Operation

FAVORITE CH Mode

After Auto Search, this feature allows you to store up to 9 programmes in preferred channel positions without researching again.

How to use Favorite CH Mode

- 1) Press "Main Menu" button once, setting to "FEATURES" mode.
- 2) Press Position Left "<" or Right ">" button, setting to "FAVORITE CH" mode.
- 3) Press Position Up "^" or Down "v" button, to select "FAVORITE CH" indication.
- 4) Press Position Left "<" or Right ">" button to store up to 9 channels that you preferred (0~99).
- 5) Key in the preferred channel number as follows:

| FAVORITE CH | | |
|-------------|------|------|
| 1--- | 2--- | 3--- |
| 4--- | 5--- | 6--- |
| 7--- | 8--- | 9--- |

- 6) After completed storing the preferred channels, press "Main Menu" button 3 times.
- 7) To view FAVORITE CH, press FAVORITE button on the Remote Control.
- 8) Press the direct Programme Number on the Remote Control (0~9) to display the preferred channels that have been stored.
- 9) After completed the preferred channels setting, press FAVORITE button once or press "Main Menu" button twice to return the set to the normal viewing condition.

To Cancel Setting

- 1) Press "Main Menu" button once, setting to FEATURES mode.
- 2) Press Position Left "<" or Right ">" button on the Remote Control, setting to FEATURES mode.
- 3) Select the stored Programme Numbers that need to be cancelled and press NORMAL button.
- 4) Press Position Left "<" or Right ">" button and select the Programme Numbers that need to be cancelled.
- 5) Press "Main Menu" button 3 times.

Note:

- 1) FAVORITE CH is not available in text mode.

RGB SKIP Mode

When RGB Skip Mode is set ON, this step is skipped.
RGB Skip Mode will change as shown:

ON ↔ OFF

| | |
|---------------|--------|
| 1 | CH2 |
| FEATURES | |
| BLUE BACK | ON |
| CHILD LOCK | OFF |
| VCR/GAME | OFF |
| FAVORITE CH | ACCESS |
| RGB SKIP | OFF |
| WAKE UP TIMER | OFF |
| SCAN MODE | AUTO |
| 16:9 | OFF |
| 3D-COMB | ON |

| | |
|---------------|--------|
| 1 | CH2 |
| FEATURES | |
| BLUE BACK | ON |
| CHILD LOCK | OFF |
| VCR/GAME | OFF |
| FAVORITE CH | ACCESS |
| RGB SKIP | OFF |
| WAKE UP TIMER | OFF |
| SCAN MODE | AUTO |
| 16:9 | OFF |
| 3D-COMB | ON |

Main Menu Operation

WAKE UP TIMER Mode

- 1) Press "Main Menu" button.
- 2) Select the "FEATURES" menu by pressing the Position Up "▲" or Down "▼" button.
- 3) Select the "FEATURES" menu by pressing the Position Left "◀" or Right "▶" button.
- 4) Select the WAKE UP TIMER by pressing the Position Up "▲" or Down "▼" button.
- 5) Press the Position Left "◀" or Right "▶" button to select the "WAKE UP TIMER". (Wake Up Timer will increase or decrease by 10 minutes when Position Left "◀" or Right "▶" button is pressed.)

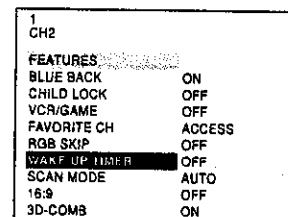
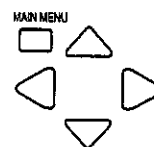
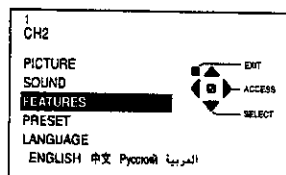
Note:

Wake Up Timer can be set up to 12 hours.

- 6) After setting the Wake Up Timer, switch the TV set to Stand-by mode. (LED light will blink ON and OFF during Stand-by mode.)
- 7) When the time Wake Up Timer has elapsed in the set, it will automatically switch ON. (Press any button to cancel the Wake Up Timer on screen display.)

Note:

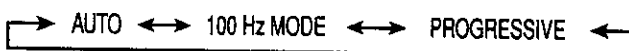
- i) After the Wake Up Timer is set and the TV is still not switched off, the Wake Up Timer will continue to count down until the timer is off.
 - ii) When Wake Up Timer switch ON the TV set, the off-timer is set to 90 minutes mode automatically. Press any button to cancel the off-timer. If no button is pressed, the TV set will switch off automatically after 90 minutes.
- 8) To cancel the Wake Up Timer, you can choose any of the following:
 - i) Switch off the main power.
 - ii) Press the Position Left "◀" or Right "▶" button, until OFF is reached.
 - iii) Press the Normalize button when Wake Up Timer OSD is displayed.



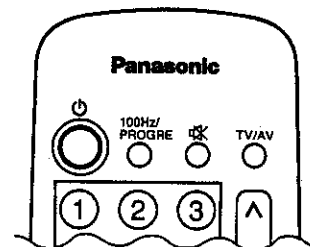
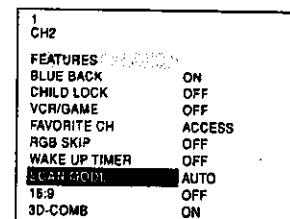
SCAN MODE


Lets you choose the screen refresh method:

Press ◀ or ▶ to switch between modes



| MODE | Function |
|---------------|--|
| AUTO | The TV software will select the best mode for the signal being viewed. |
| 100 Hz MODE | 100Hz will give a steady picture for most signal transmission. |
| PROGRESSIVE 1 | Recommended when receiving NTSC signals. |
| PROGRESSIVE 2 | |



Switching is also possible using  on the Remote Control.

Note:

We recommend that you set **Scan Mode** to **Progressive 1** and **Progressive 2** when viewing NTSC transmission. When viewing a PAL transmission (other than PAL 60) with **Scan Mode** set to **Progressive**, the screen will flicker, this is not a fault. **Progressive 1**: Progressive with flicker reduction function ON.

Progressive 2: Progressive with no flicker reduction function. When viewing TV program with moving characters, to avoid "snaking/jaggy" effect, the best choice is to select to a progressive scan.

Main Menu Operation

16:9 MODE

(No indication in RGB input mode)

When the 16:9 mode is ON, the screen ratio becomes 16:9.

| | |
|---------------|--------|
| 1 | CH2 |
| FEATURES | |
| BLUE BACK | ON |
| CHILD LOCK | OFF |
| VCR/GAME | OFF |
| FAVORITE CH | ACCESS |
| RGB SKIP | OFF |
| WAKE UP TIMER | OFF |
| SCAN MODE | AUTO |
| 16:9 | OFF |
| 3D-COMB | ON |

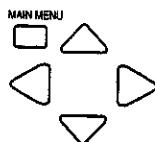
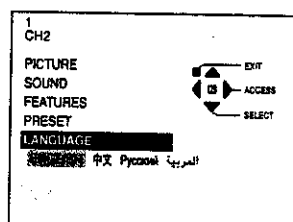
3D-COMB Mode

This feature provides clearer picture when receiving NTSC signals.
The 3D-COMB mode will change as shown:

ON ↔ OFF

| | |
|---------------|--------|
| 1 | CH2 |
| FEATURES | |
| BLUE BACK | ON |
| CHILD LOCK | OFF |
| VCR/GAME | OFF |
| FAVORITE CH | ACCESS |
| RGB SKIP | OFF |
| WAKE UP TIMER | OFF |
| SCAN MODE | AUTO |
| 16:9 | OFF |
| 3D-COMB | ON |

Language Menu Operation



- 1 Press the "Main Menu" button.
- 2 Select the "LANGUAGE" Menu by pressing the Position Up "▲" or Down "▼" button.
- 3 Press the Position Left "◀" or Right "▶" button. The on-screen language display will change.

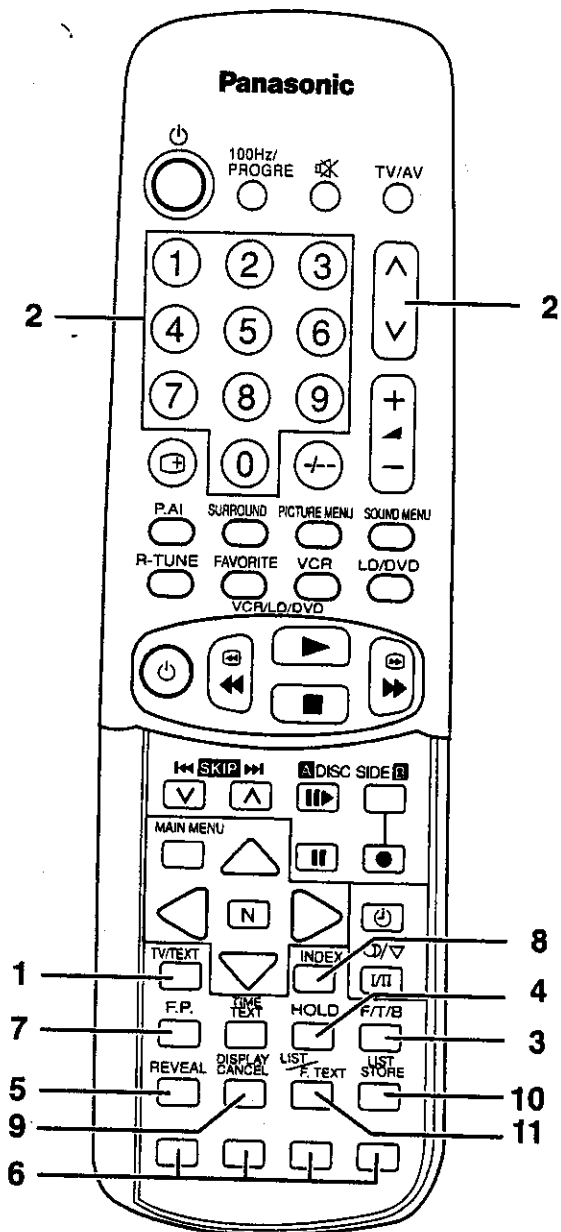
Main Menu Operation

During "RGB" input signal modes

The display during RGB connection. Details on each functions are as follows:

| | | |
|-----------------|------------------------------------|------------------------------------|
| H-SIZE | When the Position ◀ is pressed | When the Position ▶ is pressed |
| V-SIZE | When the Position ◀ is pressed | When the Position ▶ is pressed |
| H-POS | When the Position ◀ is pressed | When the Position ▶ is pressed |
| V-POS | When the Position ◀ is pressed | When the Position ▶ is pressed |
| PARABOLA | When the Position ◀ is pressed | When the Position ▶ is pressed |

Teletext Operation



- Teletext features may vary depending on the Broadcasting Companies and is only available if the channel selected is transmitting Teletext.
- When in teletext mode, the volume may still be altered to the desired listening level.

What is LIST mode?

In LIST mode, four different coloured page numbers are situated at the bottom of the screen. Each of these numbers can be altered and stored in the TV's memory.

What is FASTEXT?

In FASTEXT mode, four differently coloured subjects are situated at the bottom of the display. To access more information about one of these subjects, press the appropriately coloured button. This facility enables fast access to information of the subjects shown.

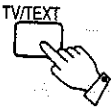
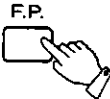
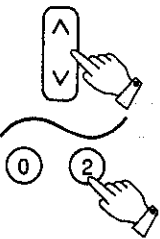

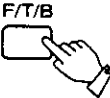
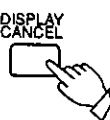
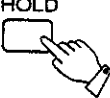

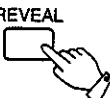






What are the advantages?

- Page selection at the touch of a Colour-coded button.
- Easy to use step-by-step selection of the topics subject.
- Reduction of waiting time.
- Page status line at bottom of screen so you always know which button will take you to the desired information.

Note:

Characters will be illegible unless you select the Text Language which matches the text being received. Select the correct Text Language (Refer to page 41).

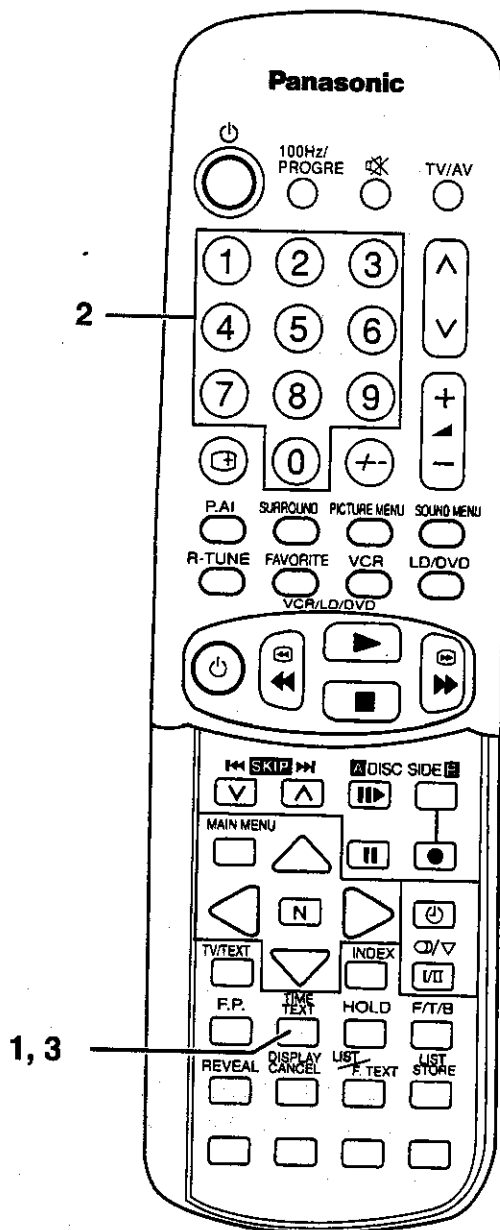
Teletext Operation

| | |
|--|--|
| <p>1</p>  <p>TV/Teletext mode By pressing the TV/TEXT button, to change the TV/Teletext mode as follows: TV ↔ TEXT</p> | <p>7</p>  <p>Favorite Page (F.P.) Stores a favorite page in memory for instant recall. To store such a page, the TV must be in LIST mode, press the Light Blue button, select the page number, then press List Store. The page number is now stored. Press F.P. button to recall this page.</p> |
| <p>2</p>  <p>Page Selection Pages can be selected in two ways: a) Press the Up "+" or Down "-" button to increase or decrease the page number by one. b) By entering the page number, using 0~9 on the Remote Control.</p> | <p>8</p>  <p>INDEX Press INDEX button to return to the main index page.</p> |
| <p>3</p>  <p>Full/Top/Bottom Press to expand the Top half of the page. Press again to expand the Bottom half. Press again to return to normal (FULL) size.</p> | <p>9</p>  <p>Display Cancel Press the DISPLAY CANCEL button to view the normal TV programme. When the desired sub-page is received, the "TEXT" message appears at the top left of the screen.</p> |
| <p>4</p>  <p>Hold Press to hold the current page. Press again to cancel the hold.</p> | <p>10</p>  <p>List Store In the LIST mode, the four page numbers can be altered for channel position. To do this, press one of the Colour-Coded buttons and enter the new page number. Press and hold LIST STORE button, the page number will change colour.</p> |
| <p>5</p>  <p>Reveal Press to reveal hidden words e.g. quiz page answers. Press again to hide.</p> | <p>11</p>  <p>List/F.Text Press to change from FASTEXT mode to LIST mode and vice versa. In FASTEXT mode, four differently coloured subjects are displayed at the bottom of the page. Press the appropriate coloured button to access more information about one of these subjects.</p> |
| <p>6</p> <p>Colour-Coded Buttons In FASTEXT mode these correspond to the differently coloured subjects. In LIST mode they correspond to the differently coloured page numbers.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">Red </div> <div style="text-align: center;">Green </div> <div style="text-align: center;">Yellow </div> <div style="text-align: center;">Light Blue </div> </div>  | |

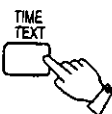
Teletext Operation

Sub Coded Page Access

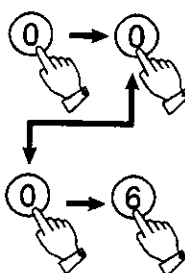
The TEXT Menu will be displayed in TEXT mode. When teletext information exceeds more than one page, it may take some time for the automatic changing of the sub pages to reach the sub page you require. It is possible to enter your required sub page and continue watching the normal programme until the correct sub page is found. Select the required page number using buttons "0~9".



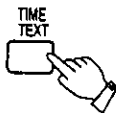
1 Press the TIME TEXT button.



2 Enter desired sub page number. To select page 6, enter 0,0,0 and 6.

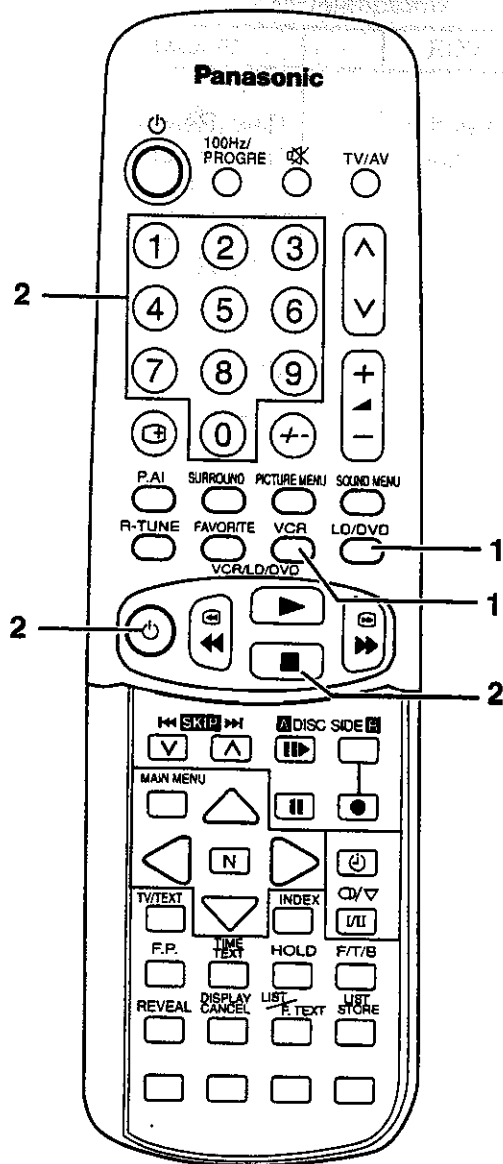


3 Press the TIME TEXT button.



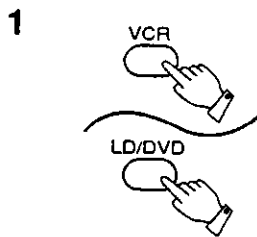
Operation of the VCR/LD/DVD

Manufacturer Setting

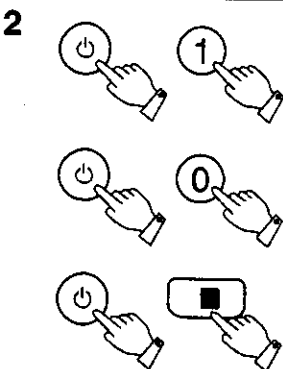


Remote Control Operation is possible for the VCR's, LD's and DVD's of the various manufacturers.

After completion of setting, execute the various operations after pressing the VCR or the LD/DVD button.



1 Press the button of the unit to be set (VCR or LD/DVD).



2 While pressing the VCR/LD/DVD Power button, press the manufacturer code setting (enter the two digit code), and press the VCR/LD/DVD Stop button.

VCR

| Manufacturer | Code | Manufacturer | Code |
|--------------|-------------|--------------|-------------|
| Panasonic/ | | NEC | 40,41,42,43 |
| National | 10,11,12,13 | ORION | 45,46 |
| AIWA | 15,16 | PHILIPS | 50 |
| FUJITSU | 20 | SANYO | 55,56,57,58 |
| HITACHI | 25,26,27 | SHARP | 60,61 |
| JVC | 30,31,32 | SONY | 65,66,67 |
| MITSUBISHI | 35,36 | TOSHIBA | 70,71 |

LD

| Manufacturer | Code | Manufacturer | Code |
|--------------|-------------|--------------|-------------|
| Panasonic | 10,11,12,13 | SAMSUNG | 30 |
| KENWOOD | 15,16 | SHARP | 35 |
| PHILIPS | 20 | SONY | 40,41,42,43 |
| PIONEER | 25 | | |

DVD

| Manufacturer | Code |
|--------------|------|
| Panasonic | 70 |

Note:

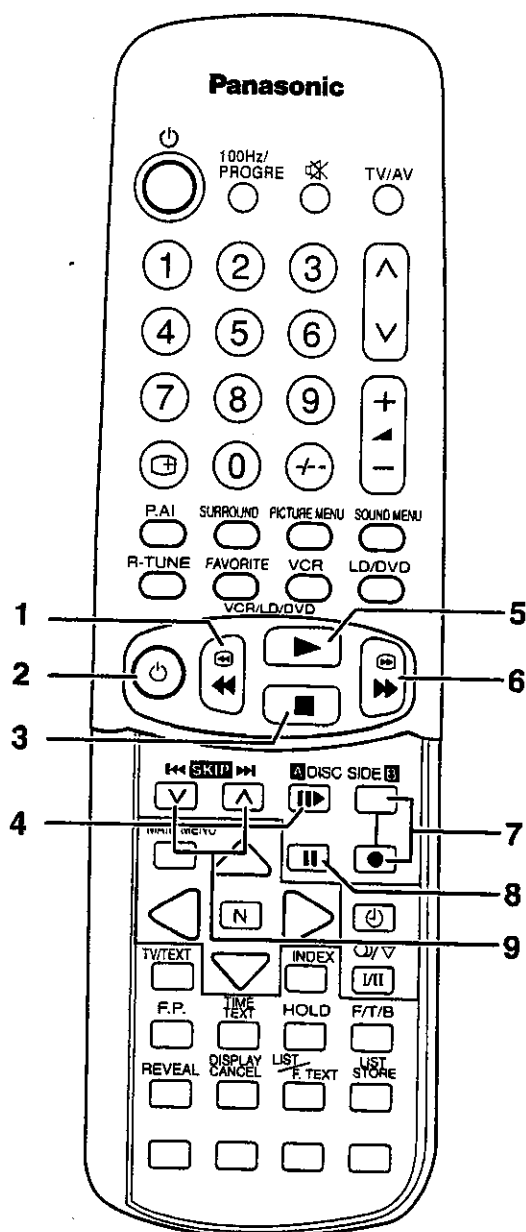
After setting, execute operation confirmation.
If there is no operation, set a different code.

Helpful Hint

- (1) The respective VCR/LD/DVD manufacturer code is cancelled when battery has been exchanged. Please set again.
- (2) Depending on the model, operation of VCR's, LD's or DVD's of the manufacturers listed above may not be possible.
- (3) In some cases, new products may not be operative.
- (4) It will not operate with other than the above manufacturers.
- (5) When viewing DVD movie program to avoid "jaggy" effect, it is recommended to select "Soft" picture in Picture Menu.

Operation of the VCR/LD/DVD

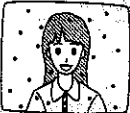

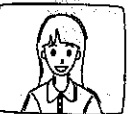
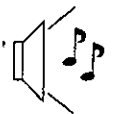
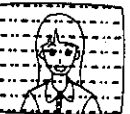


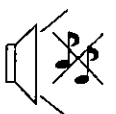

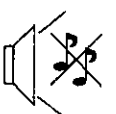


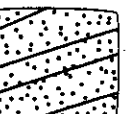





Execute the various operations after pressing the VCR or LD/DVD button.



| Button | | Function | |
|--------|--|--|------------------------------|
| | | VCR | LD/DVD |
| 1 | | Rew (Rewind) / Review Button | Rew (Rewind) / Review Button |
| 2 | | VCR Power | LD/DVD Power Button |
| 3 | | Stop Button | Stop Button |
| 4 | | Still Advance Button | DISC SIDE A Selection Button |
| 5 | | Play Button | Play Button |
| 6 | | FF (Fast Forward) / Cue Button | FF (Forward) / Cue Button |
| 7 | | Rec (Record) Button | DISC SIDE B Selection Button |
| 8 | | Pause/Still Button | Pause/Still Button |
| 9 | | Programme Number Up and Down Buttons for VCR | Programme Skip Button |

Troubleshooting

Before you call for service, determine the symptoms and make a few simple checks as shown below.

| Symptoms | | Checks |
|---|---|--|
| Picture | Sound | |
|  <p>Snowy picture</p> |  <p>Noisy sound</p> | Aerial location, direction or connections |
|  <p>Multiple image</p> |  <p>Normal sound</p> | Aerial location, direction or connections |
|  <p>Interference</p> |  <p>Noisy sound</p> | Electrical appliances Cars/Motorcycles Fluorescent lamps |
|  <p>Normal picture</p> |  <p>No sound</p> | Volume (Check whether the mute function has been activated on the Remote Control.) |
|  <p>No picture</p> |  <p>No sound</p> | Not plugged into AC outlet Not switched on Contrast and Brightness/Volume setting (Check by pressing the Power Switch or Stand-by button on the Remote Control.) |
|  <p>No colour</p> |  <p>Normal sound</p> | Colour control |
|  <p>Scrambled</p> |  <p>Normal or weak sound</p> | Retune channels |
|  <p>Coloured patches</p> |  <p>Normal sound</p> | Magnetic interference from unshielded equipment; TV set moved while "ON". Turn the TV set off for 30 minutes, using the Power Switch on the TV set. |
|  <p>No colour</p> |  <p>Noisy sound</p> | Sound System (Refer to page 38) Colour System (Refer to page 39) |

Specifications


| Power Source | AC Single 230 – 240 V, 50 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|--|--|--|--|------------|----------|---|-------------|--|---|-------|---|----------|---|------------|---|------------|---|----------|---|----------------------------|---|-------------------|-----------------------------|---|-------------------|----|-------------------|----|-------------------|----|-------------------|----|-------------------|----|---------|----|-------------------|--|----|-------------------|----|-------------------|----|---------------------|----|---------------------|----|---------------------|----|--------------------|
| Power Consumption | 197 W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Receiving System | <table><thead><tr><th></th><th>21 Systems</th><th>Function</th></tr></thead><tbody><tr><td>1</td><td>PAL B, G, H</td><td rowspan="7">Reception of broadcast transmissions and Playback from Video Cassette Tape Recorders</td></tr><tr><td>2</td><td>PAL I</td></tr><tr><td>3</td><td>PAL D, K</td></tr><tr><td>4</td><td>SECAM B, G</td></tr><tr><td>5</td><td>SECAM D, K</td></tr><tr><td>6</td><td>SECAM K1</td></tr><tr><td>7</td><td>NTSC M (NTSC 3.58/4.5 MHz)</td></tr><tr><td>8</td><td>NTSC 4.43/5.5 MHz</td><td rowspan="7">Playback from Special VCR's</td></tr><tr><td>9</td><td>NTSC 4.43/6.0 MHz</td></tr><tr><td>10</td><td>NTSC 4.43/6.5 MHz</td></tr><tr><td>11</td><td>NTSC 3.58/5.5 MHz</td></tr><tr><td>12</td><td>NTSC 3.58/6.0 MHz</td></tr><tr><td>13</td><td>NTSC 3.58/6.5 MHz</td></tr><tr><td>14</td><td>SECAM I</td></tr><tr><td>15</td><td>PAL 60 Hz/5.5 MHz</td><td rowspan="7">Playback from Special Disc Players and Special VCR's</td></tr><tr><td>16</td><td>PAL 60 Hz/6.0 MHz</td></tr><tr><td>17</td><td>PAL 60 Hz/6.5 MHz</td></tr><tr><td>18</td><td>SECAM 60 Hz/5.5 MHz</td></tr><tr><td>19</td><td>SECAM 60 Hz/6.0 MHz</td></tr><tr><td>20</td><td>SECAM 60 Hz/6.5 MHz</td></tr><tr><td>21</td><td>NTSC 50 Hz/4.5 MHz</td></tr></tbody></table> | | | | 21 Systems | Function | 1 | PAL B, G, H | Reception of broadcast transmissions and Playback from Video Cassette Tape Recorders | 2 | PAL I | 3 | PAL D, K | 4 | SECAM B, G | 5 | SECAM D, K | 6 | SECAM K1 | 7 | NTSC M (NTSC 3.58/4.5 MHz) | 8 | NTSC 4.43/5.5 MHz | Playback from Special VCR's | 9 | NTSC 4.43/6.0 MHz | 10 | NTSC 4.43/6.5 MHz | 11 | NTSC 3.58/5.5 MHz | 12 | NTSC 3.58/6.0 MHz | 13 | NTSC 3.58/6.5 MHz | 14 | SECAM I | 15 | PAL 60 Hz/5.5 MHz | Playback from Special Disc Players and Special VCR's | 16 | PAL 60 Hz/6.0 MHz | 17 | PAL 60 Hz/6.5 MHz | 18 | SECAM 60 Hz/5.5 MHz | 19 | SECAM 60 Hz/6.0 MHz | 20 | SECAM 60 Hz/6.5 MHz | 21 | NTSC 50 Hz/4.5 MHz |
| | 21 Systems | Function | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | PAL B, G, H | Reception of broadcast transmissions and Playback from Video Cassette Tape Recorders | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | PAL I | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | PAL D, K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | SECAM B, G | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | SECAM D, K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | SECAM K1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | NTSC M (NTSC 3.58/4.5 MHz) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | NTSC 4.43/5.5 MHz | Playback from Special VCR's | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | NTSC 4.43/6.0 MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | NTSC 4.43/6.5 MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | NTSC 3.58/5.5 MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | NTSC 3.58/6.0 MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | NTSC 3.58/6.5 MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | SECAM I | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | PAL 60 Hz/5.5 MHz | Playback from Special Disc Players and Special VCR's | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | PAL 60 Hz/6.0 MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | PAL 60 Hz/6.5 MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | SECAM 60 Hz/5.5 MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | SECAM 60 Hz/6.0 MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | SECAM 60 Hz/6.5 MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | NTSC 50 Hz/4.5 MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Receiving Channels | <div>Regular TV</div> <div><div><div>VHF BAND</div><div>2-12 (PAL/SECAM B, K1)</div><div>0-12 (PAL B AUST.)</div><div>1-9 (PAL B N.Z.)</div><div>1-12 (PAL/SECAM D)</div><div>1-12 (NTSC M Japan)</div><div>2-13 (NTSC M U.S.A.)</div></div><div><div>CATV</div><div>S1-S20 (OSCAR)</div><div>1-125 (U.S.A. CATV)</div><div>C13-C49 (JAPAN)</div><div>S21-S41 (HYPER)</div><div>Z1-Z37 (CHINA)</div><div>5A,9A (AUST.)</div></div><div><div>UHF BAND</div><div>21-69 (PAL G, H, I/SECAM G, K, K1)</div><div>28-69 (PAL B AUST.)</div><div>13-57 (PAL D, K)</div><div>13-62 (NTSC M Japan)</div><div>14-69 (NTSC M U.S.A.)</div></div></div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Specifications

| | | | |
|-------------------------------------|---|----------------|--|
| Tuning System | Frequency synthesizer Auto Search Tuning POS (Position) : 100 Position DIRECT : 125 Position | | |
| Picture Tube | Overall Picture tube measured diagonally | 73 cm | |
| | Viewable Picture tube measured diagonally | 68 cm | |
| | CRT Deflection | 104° | |
| Audio Output | 8 W x 2 (Speaker) 14 W (3D Woofer) | | |
| Headphones | 3.5 mm Plug | | |
| Aerial Impedance | 75 Ω Unbalanced coaxial | | |
| Video/Audio Terminals | AV 1, 2, 3, 4 | S-Video In | Y:1 Vp-p, 75 Ω C:0.3 Vp-p, 75 Ω |
| | DVD | Y | 1.0 Vp-p, 75 Ω |
| | | P _B | 0.7 Vp-p, 75 Ω |
| | | P _R | 0.7 Vp-p, 75 Ω |
| | | Video In | 1 Vp-p, 75 Ω |
| | | Audio In | Approx. 0.5 V, 47 k Ω |
| | Monitor Out | Video Out | 1 Vp-p, 75 Ω |
| | | Audio Out | Approx. 0.5 V, 1 k Ω |
| Accessories Supplied | Remote Control Transmitter EUR511046 R6 (AA) Battery x 2 | | |
| Dimensions (W x D x H) | 758 mm x 515 mm x 603.8 mm | | |
| Weight (Mass) | 53 kg (Net) | | |

Note:

Design and Specifications are subject to change without notice. Weight and Dimensions shown are approximate.

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Customer's Record

The model number and serial number of this product can be found on its cabinet. You should note this serial number in the space provided below and retain this book plus your purchase receipt as a permanent record of your purchase to aid in identification in the event of theft or loss and for Warranty Service purposes.

Model Number _____

Serial Number _____